DENON

AV SURROUND RECEIVER

AVR-1707

OPERATING INSTRUCTIONS

BEDIENUNGSANLEITUNG

MODE D'EMPLOI

ISTRUZIONI PER L'USO

INSTRUCCIONES DE FUNCIONAMIENTO

GEBRUIKSAANWIJZING

BRUKSANVISNING

❑SAFETY PRECAUTIONS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DECLARATION OF CONFORMITY
We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards:
EN60065, EN55013, EN55020, EN61000-3-2 and EN61000-3-3.
Following the provisions of 73/23/EEC, 89/336/EEC and 93/68/EEC Directive.

ÜBEREINSTIMMUNGSERKLÄRUNG
Wir erklären unter unserer Verantwortung, daß dieses Produkt, auf das sich diese Erklärung bezieht, den folgenden Standards entspricht:
EN60065, EN55013, EN55020, EN61000-3-2 und EN61000-3-3.
Entspricht den Verordnungen der Direktive 73/23/EEC, 89/336/EEC und 93/68/EEC.

DECLARATION DE CONFORMITE
Nous déclarons sous notre seule responsabilité que l'appareil, auquel se réfère cette déclaration, est conforme aux standards suivants:
EN60065, EN55013, EN55020, EN61000-3-2 et EN61000-3-3.
D'après les dispositions de la Directive 73/23/EEC, 89/336/EEC et 93/68/EEC.

DICHIARAZIONE DI CONFORMITÀ
Dichiariamo con piena responsabilità che questo prodotto, al quale la nostra dichiarazione si riferisce, è conforme alle seguenti normative:
EN60065, EN55013, EN55020, EN61000-3-2 e EN61000-3-3.
In conformità con le condizioni delle direttive 73/23/EEC, 89/336/EEC e 93/68/EEC.
QUESTO PRODOTTO E' CONFORME
AL D.M. 28/08/95 N. 548

DECLARACIÓN DE CONFORMIDAD
Declaramos bajo nuestra exclusiva responsabilidad que este producto al que hace referencia esta declaración, está conforme con los siguientes estándares:
EN60065, EN55013, EN55020, EN61000-3-2 y EN61000-3-3.
Siguiendo las provisiones de las Directivas 73/23/EEC, 89/336/EEC y 93/68/EEC.

EENVORMIGHEIDSVERKLARING
Wij verklaren uitsluitend op onze verantwoordelijkheid dat dit produkt, waarop deze verklaring betrekking heeft, in overeenstemming is met de volgende normen:
EN60065, EN55013, EN55020, EN61000-3-2 en EN61000-3-3.
Volgens de bepalingen van de Richtlijnen 73/23/EEC, 89/336/EEC en 93/68/EEC.

ÖVERENSSTÄMMELSESINTYG
Härmed intygas helt på eget ansvar att denna produkt, vilken detta intyg avser, uppfyller följande standarder:
EN60065, EN55013, EN55020, EN61000-3-2 och EN61000-3-3.
Enligt stadgarna i direktiv 73/23/EEC, 89/336/EEC och 93/68/EEC.

CAUTION:
To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet.
The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

VORSICHT:
Um dieses Gerät vollständig von der Stromversorgung abzutrennen, trennen Sie bitte den Netzstecker von der Wandsteckdose ab.
Die Hauptstecker werden verwendet, um die Stromversorgung zum Gerät völlig zu unterbrechen; er muss für den Benutzer gut und einfach zu erreichen sein.

PRECAUTION:
Pour déconnecter complètement ce produit du courant secteur, débranchez la prise de la prise murale.
La prise secteur est utilisée pour couper complètement l'alimentation de l'appareil et l'utilisateur doit pouvoir y accéder facilement.

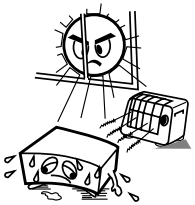
ATTENZIONE:
Per scollegare definitivamente questo prodotto dalla rete di alimentazione elettrica, togliere la spina dalla relativa presa.
La spina di rete viene utilizzata per interrompere completamente l'alimentazione all'unità e deve essere facilmente accessibile all'utente.

PRECAUCIÓN:
Para desconectar completamente este producto de la alimentación eléctrica, desconecte el enchufe del enchufe de la pared.
El enchufe de la alimentación se utiliza para interrumpir por completo el suministro de alimentación a la unidad y debe de encontrarse en un lugar al que el usuario tenga fácil acceso.

VOORZICHTIGHEID:
Om de voeding van dit product volledig te onderbreken moet de stekker uit het stopcontact worden getrokken.
De netstekker wordt gebruikt om de stroomtoevoer naar het toestel volledig te onderbreken en moet voor de gebruiker gemakkelijk bereikbaar zijn.

FÖRSIKTIHETSMÅTT:
Koppla loss stickproppen från eluttaget för att helt skilja produkten från nätet.
Stickproppen används för att helt bryta strömförsörjningen till apparaten, och den måste vara lättillgänglig för användaren.

❑NOTE ON USE / HINWEISE ZUM GEBRAUCH / OBSERVATIONS RELATIVES A L'UTILISATION / NOTE SULL'USO / NOTAS SOBRE EL USO / ALVORENS TE GEBRUIKEN / OBSERVERA

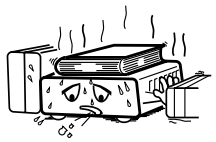


- Avoid high temperatures.
  Allow for sufficient heat dispersion when installed in a rack.
- Vermeiden Sie hohe Temperaturen.
  Beachten Sie, daß eine ausreichend Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird.
- Eviter des températures élevées
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Evitate di esporre l'unità a temperature alte.
  Assicuratevi che ci sia un'adeguata dispersione del calore quando installate l'unità in un mobile per componenti audio.
- Evite altas temperaturas.
  Permite la suficiente dispersión del calor cuando está instalado en la consola.
- Vermijd hoge temperaturen.
  Zorg voor een degelijk hitteafvoer indien het apparaat op een rek wordt geplaatst.
- Undvik höga temperaturer.
  Se till att det finns möjlighet till god värmeavledning vid montering i ett rack.

- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Gehen Sie vorsichtig mit dem Netzkabel um.
  Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.
- Manneggiate il filo di alimentazione con cura.
  Agite per la spina quando scollegate il cavo dalla presa.
- Maneje el cordón de energía con cuidado.
  Sostenga el enchufe cuando desconecte el cordón de energía.
- Hanteer het netsnoer voorzichtig.
  Houd het snoer bij de stekker vast wanneer deze moet worden aan- of losgekoppeld.
- Hantera nätkabeln varsamt.
  Håll i kabeln när den kopplas från el-uttaget.

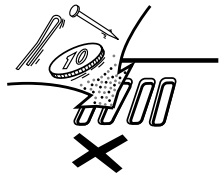
- Keep the apparatus free from moisture, water, and dust.
- Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern.
- Protéger l'appareil contre l'humidité, l'eau et lapoussière.
- Tenete l'unità lontana dall'umidità, dall'acqua e dalla polvere.
- Mantenga el equipo libre de humedad, agua y polvo.
- Laat geen vochtigheid, water of stof in het apparaat binnendringen.
- Utsätt inte apparaten för fukt, vatten och damm.

- Unplug the power cord when not using the apparatus for long periods of time.
- Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Disinnestate il filo di alimentazione quando avete l'intenzione di non usare il filo di alimentazione per un lungo periodo di tempo.
- Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.
- Neem altijd het netsnoer uit het stopkontakt wanneer het apparaat gedurende een lange periode niet wordt gebruikt.
- Koppla ur nätkabeln om apparaten inte kommer att användas i lång tid.



* (For apparatuses with ventilation holes)

- Do not obstruct the ventilation holes.
- Die Belüftungsöffnungen dürfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.
- Non coprite i fori di ventilazione.
- No obstruya los orificios de ventilación.
- De ventilatieopeningen mogen niet worden beblokkeerd.
- Täpp inte till ventilationsöppningarna.



- Do not let foreign objects into the apparatus.
- Keine fremden Gegenstände in das Gerät kommen lassen.
- Ne pas laisser des objets étrangers dans l'appareil.
- E' importante che nessun oggetto è inserito all'interno dell'unità.
- No deje objetos extraños dentro del equipo.
- Laat geen vreemde voorwerpen in dit apparaat vallen.
- Se till att främmande föremål inte tränger in i apparaten.

- Do not let insecticides, benzene, and thinner come in contact with the apparatus.
- Lassen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- Assicuratevvi che l'unità non venga in contatto con insetticidi, benzolo o solventi.
- No permita el contacto de insecticidas, gasolina y diluyentes con el equipo.
- Laat geen insektenverdelgende middelen, benzine of verfverdunner met dit apparaat in kontakt komen.
- Se till att inte insektsmedel på spraybruk, bensen och thinner kommer i kontakt med apparatens hölje.

- Never disassemble or modify the apparatus in any way.
- Versuchen Sie niemals das Gerät auseinander zu nehmen oder auf jegliche Art zu verändern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Non smontate mai, nè modificate l'unità in nessun modo.
- Nunca desarme o modifique el equipo de ninguna manera.
- Nooit dit apparaat demonteren of op andere wijze modifiëren.
- Ta inte isär apparaten och försök inte bygga om den.

CAUTION:
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Attention should be drawn to the environmental aspects of battery disposal.
- Do not expose the set to dripping or splashing fluids.
- No objects filled with liquids, such as vases, shall be placed on the apparatus.

ACHTUNG:
- Die Belüftung sollte auf keinen Fall durch das Abdecken der Belüftungsöffnungen durch Gegenstände wie beispielsweise Zeitungen, Tischtücher, Vorhänge o. Ä. behindert werden.
- Auf dem Gerät sollten keinerlei direkten Feuerquellen wie beispielsweise angezündete Kerzen aufgestellt werden.
- Bitte beachten Sie bei der Entsorgung der Batterien die geltenden Umweltbestimmungen.
- Das Gerät sollte keinerlei Flüssigkeit, also keinem Tropfen oder Spritzen ausgesetzt werden.
- Auf dem Gerät sollten keinerlei mit Flüssigkeit gefüllten Behälter wie beispielsweise Vasen aufgestellt werden.

ATTENTION:
- La ventilation ne doit pas être gênée en recouvrant les ouvertures de la ventilation avec des objets tels que journaux, rideaux, tissus, etc.
- Aucune flamme nue, par exemple une bougie, ne doit être placée sur l'appareil.
- Veillez à respecter l'environnement lorsque vous jetez les piles usagées.
- L'appareil ne doit pas être exposé à l'eau ou à l'humidité.
- Aucun objet contenant du liquide, par exemple un vase, ne doit être placé sur l'appareil.

PRECAUZIONI:
- Le aperture di ventilazione non devono essere ostruite coprendole con oggetti, quali giornali, tovaglie, tende e così via.
- Non posizionare sull'apparecchiatura fiamme libere, come ad esempio le candele accese.
- Prestare attenzione agli aspetti legati alla tutela dell'ambiente quando si smaltisce la batteria.
- L'apparecchiatura non deve essere esposta a gocciolii o spruzzi.
- Non posizionare sull'apparecchiatura nessun oggetto contenete liquidi, come ad esempio i vasi.

PRECAUCIÓN:
- La ventilación no debe quedar obstruida por hacerse cubierto las aperturas con objetos como periódicos, manteles, cortinas, etc.
- No debe colocarse sobre el aparato ninguna fuente inflamable sin protección, como velas encendidas.
- A la hora de deshacerse de las pilas, respete la normativa para el cuidado del medio ambiente.
- No se expondrá el aparato al goteo o salpicaduras cuando se utilice.
- No se colocarán sobre el aparato objetos llenos de líquido, como jarros.

WAARSCHUWING:
- De ventilatie mag niet worden belemmerd door de ventilatieopeningen af te dekken met bijvoorbeeld kranten, een tafelkleed, gordijnen, enz.
- Plaats geen open vlammen, bijvoorbeeld een brandende kaars, op het apparaat.
- Houd u steeds aan de milieuvoorschriften wanneer u gebruikte batterijen wegdoet.
- Stel het apparaat niet bloot aan druppels of spatten.
- Plaats geen voorwerpen gevuld met water, bijvoorbeeld een vaas, op het apparaat.

OBSERVERA:
- Ventilationen bör inte förhindras genom att täcka för ventilationsöppningarna med föremål såsom tidningar, bordsdukar, gardiner osv.
- Inga blottade brandkällor, såsom tända ljus, bör placeras på apparaten.
- Tänk på miljöaspekterna när du bortskaffar batteri.
- Apparaten får inte utsättas för vätska.
- Inga objekt med vätskor, såsom vaser, får placeras på apparaten.

A NOTE ABOUT RECYCLING:

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations.
When discarding the unit, comply with local rules or regulations.
Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning chemical waste.
This product and the accessories packed together constitute the applicable product according to the WEEE directive except batteries.

HINWEIS ZUM RECYCLING:

Das Verpackungsmaterial dieses Produktes ist für zum Recyceln geeignet und kann wieder verwendet werden. Bitte entsorgen Sie alle Materialien entsprechend der örtlichen Recycling-Vorschriften.
Beachten Sie bei der Entsorgung des Gerätes die örtlichen Vorschriften und Bestimmungen.
Die Batterien dürfen nicht in den Hausmüll geworfen oder verbrannt werden; bitte geben Sie die Batterien gemäß örtlichen Bestimmungen an den Sammelstellen oder Sondermüllplätzen ab.
Dieses Produkt zusammen mit den Zubehörteilen ist das geltende Produkt der WEEE-Direktive, davon ausgenommen sind die Batterien.

UNE REMARQUE CONCERNANT LE RECYCLAGE:

Les matériaux d'emballage de ce produit sont recyclables et peuvent être réutilisés. Veuillez disposer de tout matériau conformément aux réglements de recylage locaux.
Lorsque vous mettez cet appareil au rebut, respectez les lois ou réglementations locales.
Les piles ne doivent jamais être jetées ou incinérées, mais mises au rebut conformément aux réglements locaux concernant les déchets chimiques.
Ce produit et les accessoires emballés ensemble sont des produits conformes à la directive DEEE sauf pour les piles.

NOTA RELATIVA AL RICICLAGGIO:

I materiali di imballaggio di questo prodotto sono riutilizzabili e riciclabili. Smaltire i materiali conformemente alle normative locali sul riciclaggio.
Per smaltire l'unità, osservare la normativa in vigore nel luogo di utilizzo.
Non gettare le batterie, né incenerirle, ma smaltirle conformemente alla normativa locale sui rifiuti chimici.
Questo prodotto e gli accessori inclusi nell'imballaggio sono applicabili alla direttiva RAEE, ad eccezione delle batterie.

ACERCA DEL RECICLAJE:

Los materiales de embalaje de este producto son reciclables y se pueden volver a utilizar. Disponga de estos materiales siguiendo los reglamentos de reciclaje de su localidad.
Cuando se deshaga de la unidad, cumpla con las reglas o reglamentos locales.
Las pilas nunca deberán tirarse ni incinerarse. Deberá disponer de ellas siguiendo los reglamentos de su localidad relacionados con los desperdicios químicos.
Este producto junto con los accesorios empaquetados es el producto aplicable a la directiva RAEE excepto pilas.

EEN AANTEKENING WAT BETREFT HET RECYCLEREN:

Het inpakmateriaal van dit product is recycleerbaar en kan opnieuw gebruikt worden. Er wordt verzocht om zich van elk afvalmateriaal te ontdoen volgens de plaatselijke voorschriften.
Volg voor het wegdoen van de speler de voorschriften voor de verwijdering van wit- en bruingoed op.
Batterijen mogen nooit worden weggegooid of verbrand, maar moeten volgens de plaatselijke voorschriften betreffende chemisch afval worden verwijderd.
Op dit product en de meegeleverde accessoires, m.u.v. de batterijen is de richtlijn voor afgedankte elektrische en elektronische apparaten (WEEE) van toepassing.

EN KOMMENTAR OM ÅTERVINNING:

Produktens emballage är återvinningsbart och kan återanvändas. Kassera det enligt lokala återvinningsbestämmelser.
När du kasserar enheten ska du göra det i överensstämmelse med lokala regler och bestämmelser.
Batterier får absolut inte kastas i soporna eller brännas. Kassera dem enligt lokala bestämmelser för kemiskt avfall.
Denna apparat och de tillbehör som levereras med den är de som uppfyller gällande WEEE-direktiv, med undantag av batterierna.

Thank you for choosing the DENON AVR-1707 AV Surround Receiver. This remarkable component has been engineered to provide superb surround sound listening with home theater sources such as DVD, as well as providing outstanding high fidelity reproduction of your favorite music sources.
As this product is provided with an immense array of features, we recommend that before you begin hookup and operation that you review the contents of this manual before proceeding.

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Getting Started

Accessories

Check that the following parts are attached in addition to the main unit:

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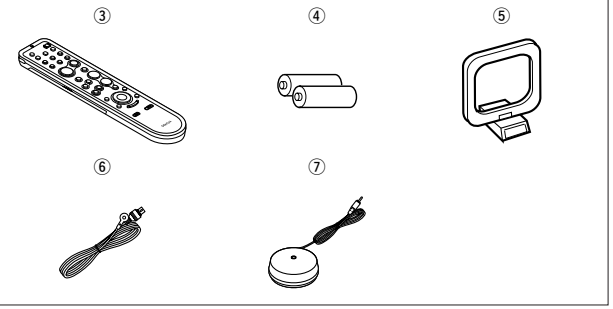
② Service station list ····1
③ Remote control unit (RC-1049) ····1
④ R6P/AA batteries ····2
⑤ AM loop antenna ····1
⑥ FM indoor antenna ····1
⑦ Setup microphone (DM-S205) (Approx. 6 m) ····1



Before using

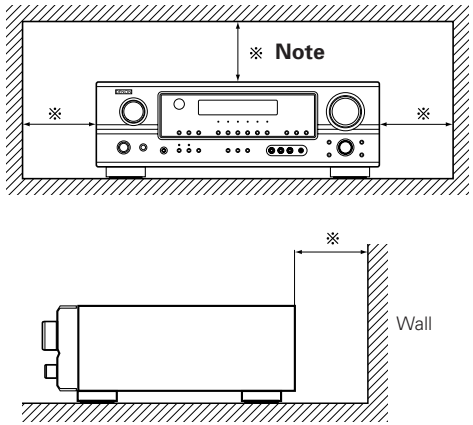
Pay attention to the following before using this unit:

- **Moving the unit.**
  To prevent short-circuits or damaged wires in the connection cables, always unplug the power supply cord and disconnect the connection cables between all other audio components when moving the unit.
- **Cautions on using mobile phones.**
  Using a mobile phone near this unit may result in noise. If so, move the mobile phone away from this unit when it is in use.
- **Before turning the power operation button on.**
  Check once again that all connections are correct and that there are not problems with the connection cables. Always set the power operation button to the standby position before connecting and disconnecting connection cables.
- **Store these instructions in a safe place.**
  After reading, store this instructions along with the warranty card in a safe place.
- **Whenever the power operation button is in the STANDBY state, the unit is still connected to AC line voltage.**
  Please be sure to turn off the power operation button or unplug the cord when you leave home for, say, a vacation.
- **Note that the illustrations in these instructions may differ from the actual unit for explanation purposes.**

Getting Started

Cautions on installation

Note:
For heat dispersal, do not install this unit in a confined space such as a bookcase or similar enclosure.

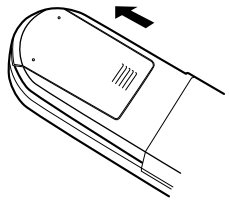


About the remote control unit

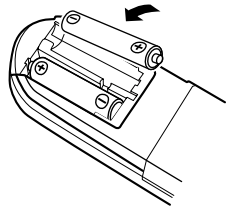
In addition to controlling the AVR-1707, the attached remote control unit (RC-1049) can also be used to control the following products:
① DENON component products
② Component products other than DENON:
• Set using the preset memory function (☞ page 46).

Inserting the batteries

① Remove the remote control unit's rear cover.



② Set two R6P/AA batteries in the battery compartment in the indicated direction.

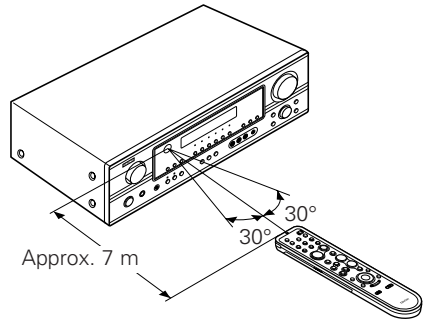


③ Put the rear cover back on.

Notes on batteries:
- Replace the batteries with new ones if the set does not operate even when the remote control unit is operated nearby the unit. (The attached batteries are only for verifying operation.)
- When inserting the batteries, be sure to do so in the proper direction, following the "⊕" and "⊖" marks in the battery compartment.
- To prevent damage or leakage of battery fluid:
  - Do not use a new battery together with an old one.
  - Do not use two different types of batteries.
  - Do not short-circuit, disassemble, heat or dispose of batteries in flames.
- Remove the batteries from the remote control unit when you do not plan to use it for an extended period of time.
- If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.
- Remove the batteries from the remote if it will not be in use for long periods.

Operating range of the remote control unit

- Point the remote control unit at the remote sensor when operating it.
- The remote control unit can be used from a distance of approximately 7 meters, at a horizontal angle of up to 30° with respect to the sensor.

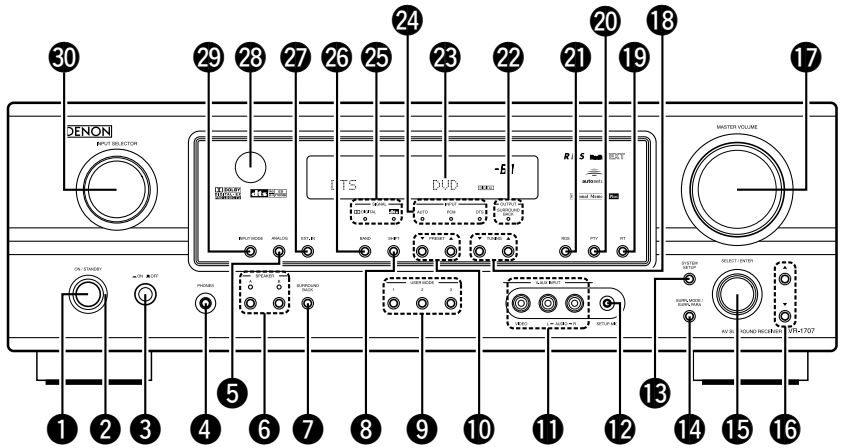


NOTE:
- It may be difficult to operate the remote control unit if the remote sensor is exposed to direct sunlight or strong artificial light.

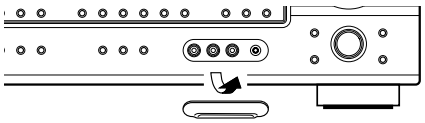
Part names and functions

For details on the functions of these parts, refer to the pages given in parentheses ( ).

Front panel



❶ **Power operation button (ON/STANDBY)** ·····(10)
❷ **Power indicator** ·····(10)
❸ **Power switch** ·····(10, 35)
❹ **Headphones jack (PHONES)** ·····(19)
❺ **ANALOG button** ·····(18)
❻ **SPEAKER buttons** ·····(10, 35)
❼ **SURROUND BACK button** ·····(21)
❽ **SHIFT button** ·····(30)
❾ **USER MODE buttons** ·····(33)
❿ **PRESET buttons** ·····(29, 30)
⓫ **V. AUX INPUT terminals**
Remove the cap covering the terminals when you want to use them.



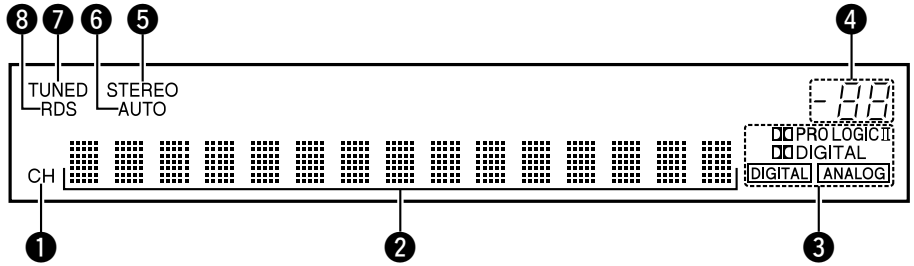
⓬ **SETUP MIC jack** ·····(10)
⓭ **SYSTEM SETUP button** ·····(38)
⓮ **SURR. MODE/SURR. PARA button** ·····(18)
⓯ **SELECT/ENTER knob** ·····(20, 28)

- The **SELECT/ENTER** knob on the main unit operates in the same way as the **CURSOR** ◁ and ▷ buttons on the remote control unit.

- The control functions in the same way as the **CURSOR** ◁ button when turned counterclockwise, as the **CURSOR** ▷ button when turned clockwise.
- The control functions in the same way as the **ENTER** button when pressed the knob.

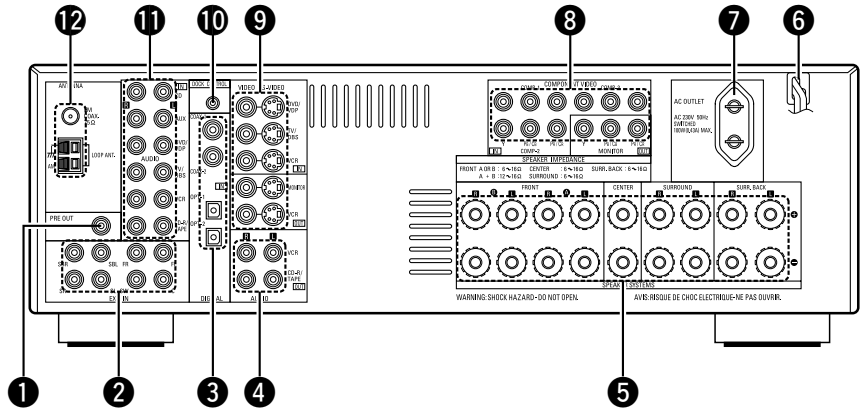
⓰ **Cursor buttons (△, ▽)** ·····(21)
⓱ **MASTER VOLUME control knob** ·····(18)
⓲ **TUNING buttons (▲, ▼)** ·····(30)
⓳ **RT button** ·····(32)
⓴ **PTY button** ·····(31)
㉑ **RDS button** ·····(31)
㉒ **SURROUND BACK indicator** ·····(21)
㉓ **Display**
㉔ **INPUT mode indicators** ·····(18)
㉕ **SIGNAL indicators** ·····(21)
㉖ **BAND button** ·····(30)
㉗ **EXT. IN button** ·····(18)
㉘ **Remote control sensor** ·····(3)
㉙ **INPUT MODE button** ·····(18)
㉚ **INPUT SELECTOR knob** ·····(18)

Display



❶ **Signal channel indicator**
Lights when the preset channel is displayed at ❷.
❷ **Information display**
❸ **Input signal indicators**
❹ **Master volume indicator**
This displays the volume level.
The Setup item number is displayed in System Setup.
❺ **STEREO indicator**
This lights when an FM stereo broadcast has been received.
❻ **AUTO indicator**
This lights when the broadcast station is selected in the AUTO tuning mode.
❼ **TUNED indicator**
This lights when an FM/AM broadcast has been received.
❽ **RDS indicator**
This lights when an RDS broadcast has been received.

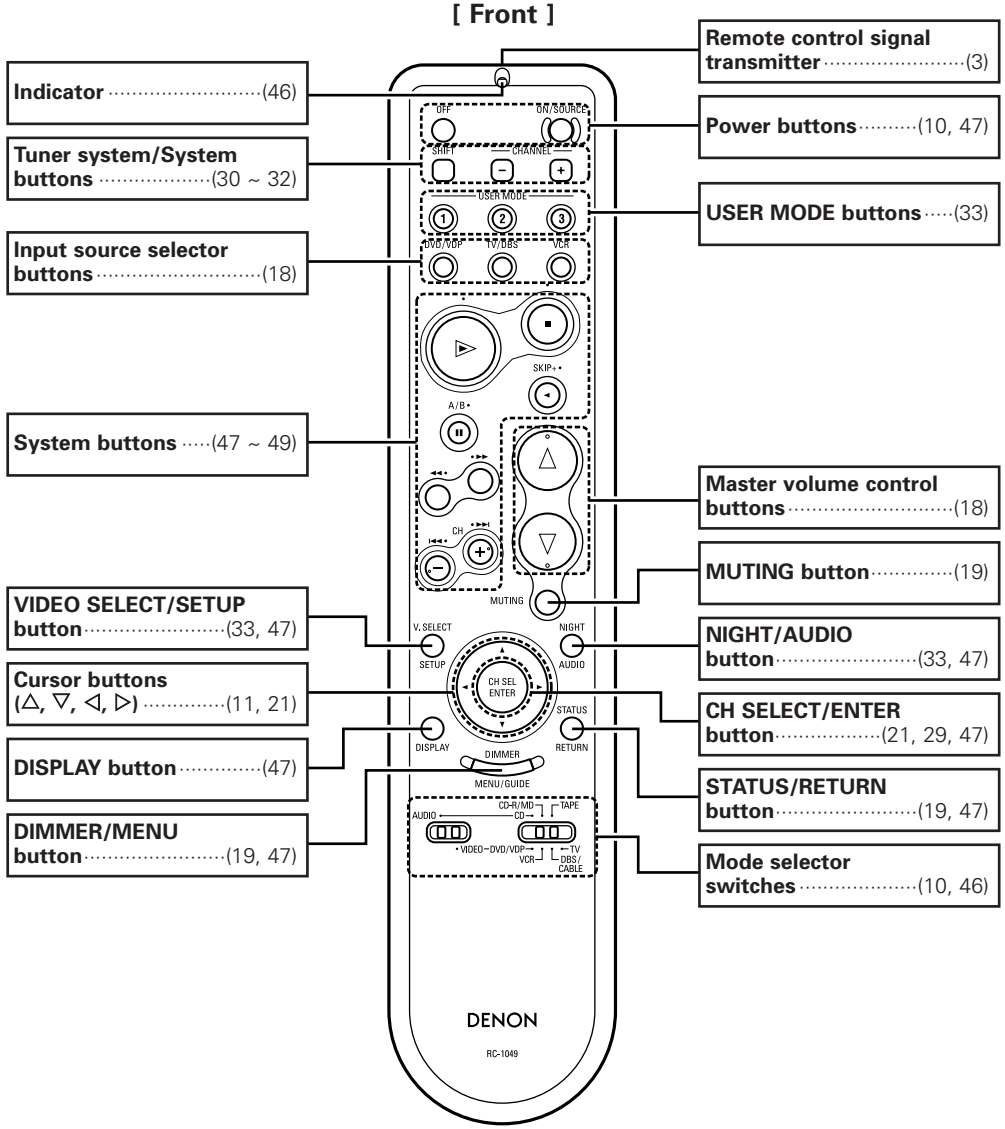
Rear panel



❶ **PRE OUT terminal**.....(8)
❷ **EXT. IN terminals**.....(14)
❸ **DIGITAL terminals**
(Optical/Coaxial).....(9, 15)
❹ **AUDIO OUT terminals**.....(9, 15)
❺ **Speaker terminals**.....(8, 41)
❻ **Power supply cord**.....(17)
❼ **AC outlet**.....(17)
❽ **COMPONENT VIDEO terminals**.....(9)
❾ **VIDEO/S-VIDEO terminals**.....(9)
❿ **DOCK CONTROL jack**.....(17)
⓫ **AUDIO IN terminals**.....(9)
⓬ **ANTENNA terminals**.....(16)

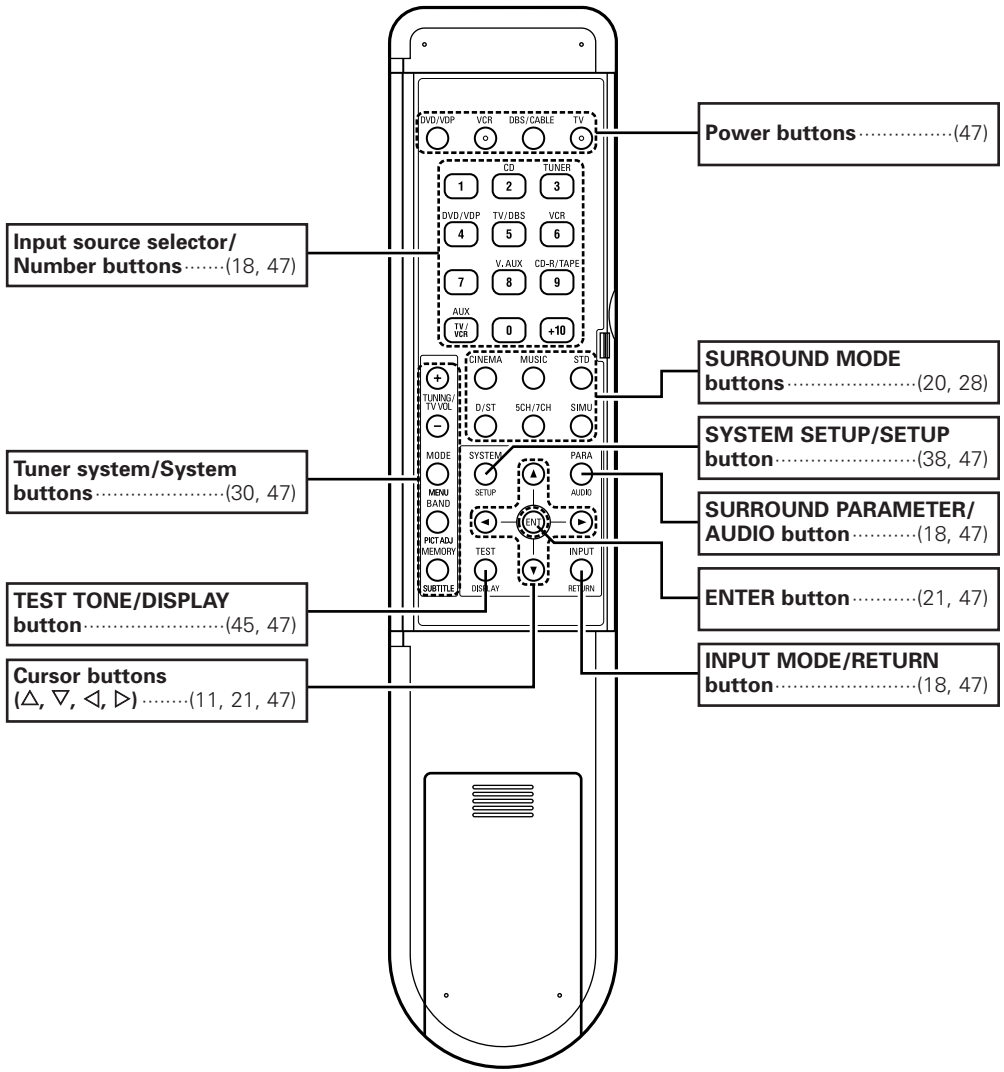
Remote control unit

[Front]



Getting Started

[Rear]



Power buttons·····(47)

Input source selector/ Number buttons·····(18, 47)

SURROUND MODE buttons·····(20, 28)

SYSTEM SETUP/SETUP button·····(38, 47)

Tuner system/System buttons·····(30, 47)

SURROUND PARAMETER/ AUDIO button·····(18, 47)

TEST TONE/DISPLAY button·····(45, 47)

ENTER button·····(21, 47)

Cursor buttons (△, ▽, ◁, ▷)·····(11, 21, 47)

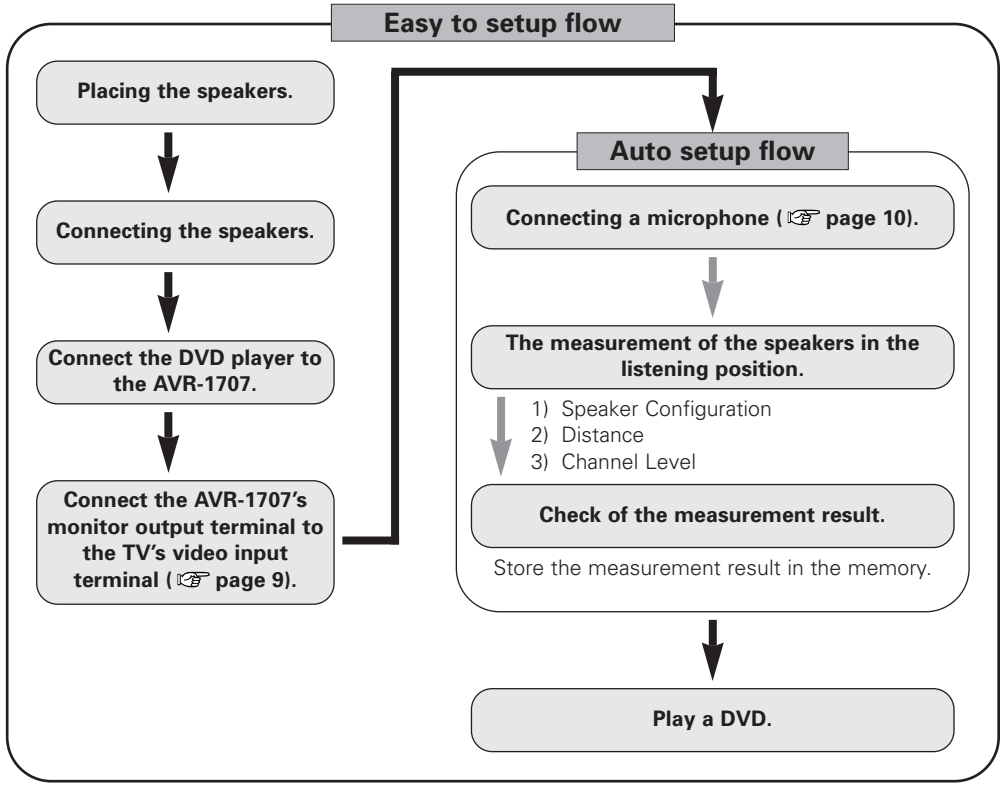
INPUT MODE/RETURN button·····(18, 47)

NOTE:

- If buttons on the front or rear are pressed strongly, the button on the opposite side will be activated too.

Easy Setup Procedure

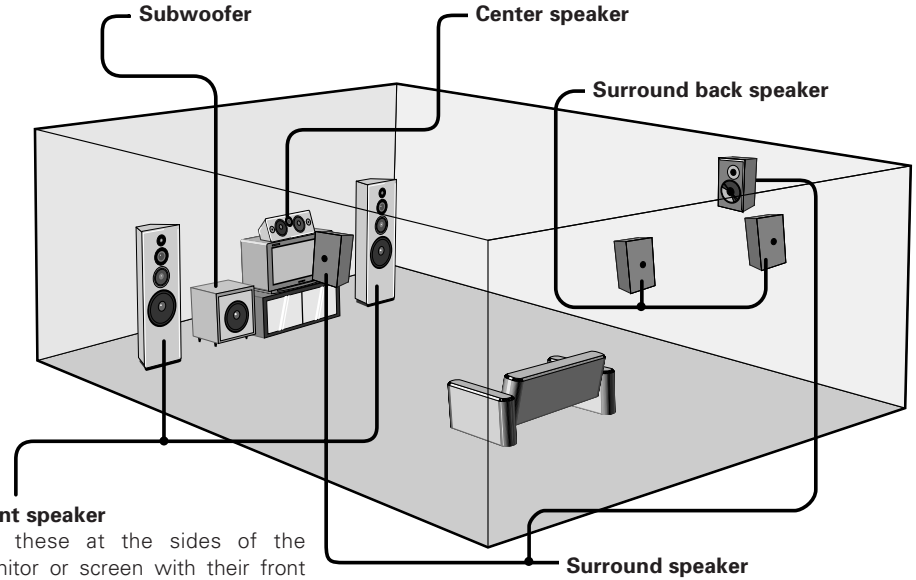
- This section contains the basic steps necessary to configure the AVR-1707 according to your listening room environment and the source equipment and loudspeakers you are using.
- To set the sound field manually (☞ page 43 ~ 45).


Easy to setup flow
Placing the speakers.
Connecting the speakers.
Connect the DVD player to the AVR-1707.
Connect the AVR-1707's monitor output terminal to the TV's video input terminal (☞ page 9).
Auto setup flow
Connecting a microphone (☞ page 10).
The measurement of the speakers in the listening position.
1) Speaker Configuration
2) Distance
3) Channel Level
Check of the measurement result.
Store the measurement result in the memory.
Play a DVD.

- Do not plug in the power supply cord until all connections have been completed.

Speaker layout [Basic layout]

Example of basic layout with eight speakers and a monitor.



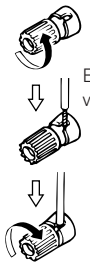
Front speaker
Set these at the sides of the monitor or screen with their front surfaces as flush with the front of the screen as possible.

Speaker connections

Connect the speaker terminals with the speakers making sure that like polarities are matched (⊕ with ⊕, ⊖ with ⊖).

NOTE:
When making connections, take care that none of the individual conductors of the speaker cable come in contact with adjacent terminals, with other speaker cable conductors, or with the rear panel and screws.
NEVER touch the speaker terminals when the power is on. Doing so could result in electric shocks.

Connecting the speaker cables



1. Loosen by turning counterclockwise.

Either tightly twist or terminate the core wires.

2. Insert the cable.

3. Tighten by turning clockwise.

❑Speaker impedance

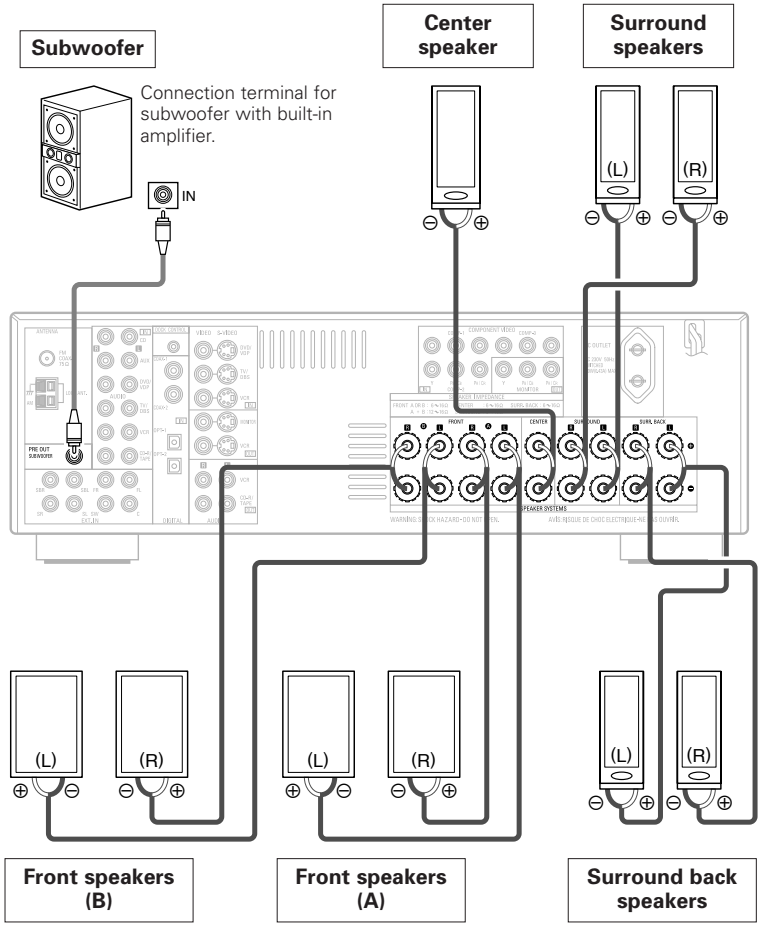
Speaker	Impedance
Front A, B	6 ~ 16 Ω/ohms
Front A+B	12 ~ 16 Ω/ohms
Center	6 ~ 16 Ω/ohms
Surround	
Surround back	

Note on speaker impedance

When using speakers with an impedance below the designated value (for example 4 Ω/ohms), playing for long periods of time with the volume high could cause the temperature to rise, activating the protection circuit.
When the protection circuit is activated, the output to the speakers is cut off and the power indicator blinks. If this happens, unplug the power cord, wait for the set to cool off and improve ventilation around the unit. Also check the wiring of the input cables and the speaker cables. After doing this, plug the power cord back in and turn the unit's power back on.
If the protection circuit is activated again even though there are no problems with the wiring or the ventilation around the unit, switch off the power and contact a DENON service center.

❑Connections

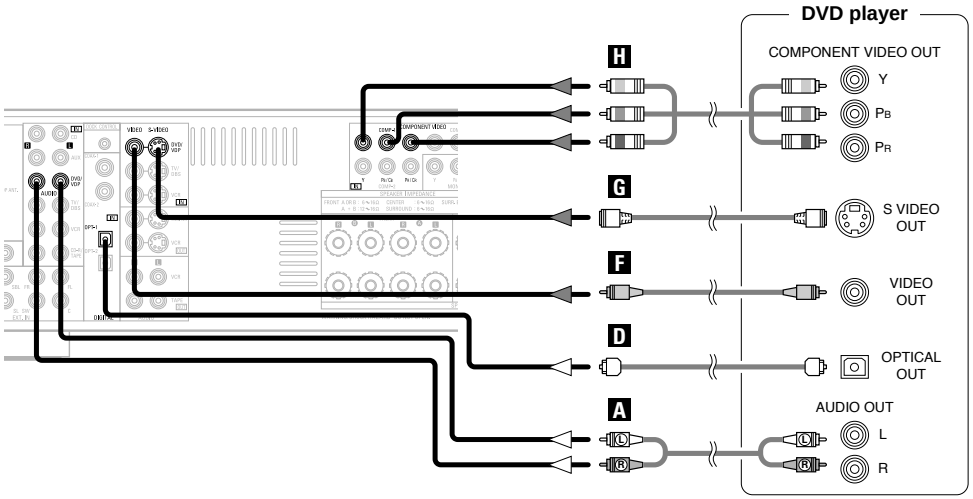
- With the AVR-1707, up to ten speakers can be connected for surround playback.
- When making connections, also refer to the operating instructions of the other components.



When using only one surround back speaker, connect it to the left channel.

Connecting a DVD player and monitor

- To connect the video output from the DVD player to the AVR-1707, you only need to choose one connection type. For more information about the video up conversion function (☞ page 13).
- To connect the digital audio output from the DVD player, you can choose from either the coaxial or optical connections. If you choose to use the coaxial connection, it needs to be assigned. For more information about Digital Input Assignment (☞ page 39).

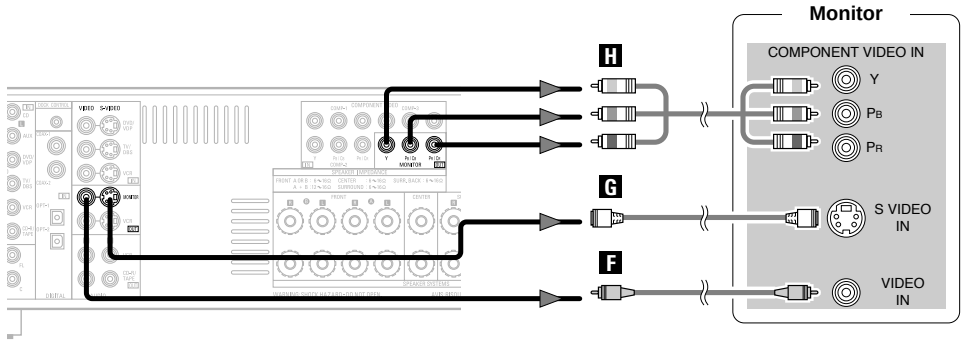


※ Audio signal flow is shown with white arrows, video signal flow is shown with gray arrows.

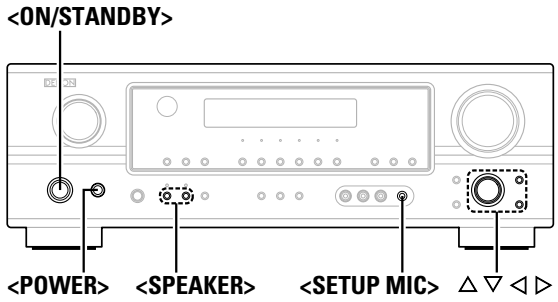
- Connect a non-DVD video disc player (such as a laser disc, VCD/SVCD, or future high definition disc player) to the DVD/VDP terminals in the same way.

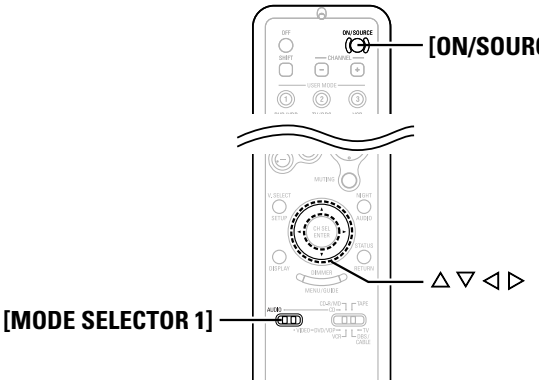
Easy Setup Procedure

- For best picture quality (especially with progressive DVD and other high definition sources), choose the component video connection to your monitor. S-Video and composite video outputs are also provided if your monitor does not have component video inputs.



- The component video input and/or output terminals may be labelled differently on some monitors or video components. Check the owner's manuals for other components for further information.





About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

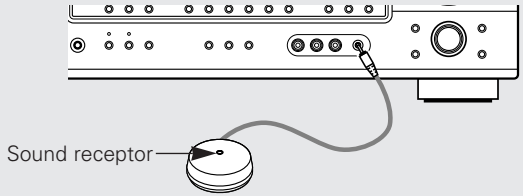
Auto Setup

The AVR-1707's auto setup use the attached microphone to measure the acoustic properties in the room and automatically make the optimum settings.

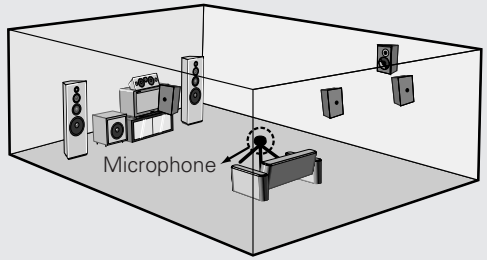
• To make the sound field settings manually (☞ page 43 ~ 45).

① Connecting a microphone

1 Connect the attached setup microphone to <SETUP MIC>.



2 Mount the setup microphone on a camera tripod, etc., and set with the receptor pointing towards the ceiling.



※ Place the setup microphone's sound receptor at the height of the ears in the listening position.

※ It is not possible to measure properly if there are any obstacles between the speakers and microphone. Check that there are no obstacles.

② Before performing the Auto Setup procedure

1 Turn on your subwoofer.

※ Set the volume to halfway and set the crossover frequency to the maximum or Low pass filter off if your subwoofer can adjust the output volume and the crossover frequency.

※ Some subwoofers have a standby mode. Be sure to turn this function off before performing the Auto Setup procedure.

2 Turn on your monitor.

3 Press <POWER>.

ON:
The power indicator lights red.

OFF:
The power turns off and the indicator is off.

4 Press <ON/STANDBY> or [ON/SOURCE].

• The power indicator blinks green and the power turns on.

5 Set [MODE SELECTOR 1] to "AUDIO".

• Auto Setup mode is not displayed when using headphones.

③ Switching the front speaker

Press <SPEAKER> to select the front speaker (Front A, Front B or Front A+B).

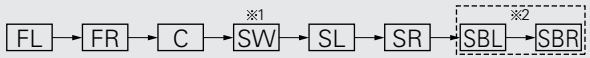
Easy Setup Procedure

④ Starting Auto Setup

1 Press ◁ to start the Auto Setup.

• Start the measurements.

※ Measurement of each channel is performed as follows:

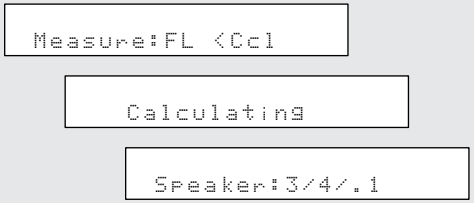


※1: The subwoofer speaker is measured twice.

※2: Not displayed when "Front A" and "Front B" are set at "Setting the Power Amplifier Assignment" (☞ page 41).

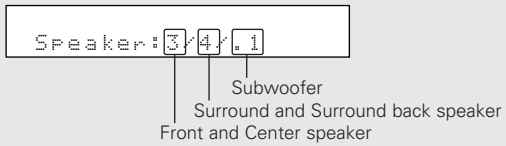
After each channel is measured, "Calculating" appears.

The display switches to the speaker check display automatically.



❑ Check the results of the speaker detection

Example: 7.1-channel systems



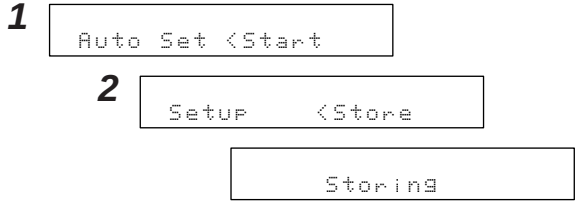
2 Press △ ▽ to select "Store", then press ◁.

Store:
Store the checked measurement values.
All parameters are stored.

Retry:
Measure again.

Cancel:
Cancel the checked measurement values.

3 Disconnect the setup mic to finish Auto Setup.



• When measurements have been made using the measurement microphone, speakers with a built-in filter such as subwoofers might be set with a value that differs from the physical distance because of the internal electrical delay.

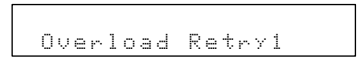
NOTE:
• Do not change the speaker connections or subwoofer volume after making the measurements.
• Do not turn off the power while the data is being stored.

Cautions during measurements:
• Loud test tones are output during the measurements. Be careful for example when small children are nearby.
• Proper measurements may not be possible if there are obstacles between the speaker and the setup microphone.
• During the measurements, do not stand between or near the speakers and setup microphone.
• To avoid influencing the measurements, turn off the power of air-conditioners or any other equipment producing sound in the room. Perform the measurements with the room as quiet as possible.
• Measurement is cancelled when **VOLUME** is operated while the Auto Setup is performed.

❑ About automatic retry

To confirm the results of the measurements, remeasurement is automatically performed.

Remeasurement is performed up to two times. During this time, "Retry1" or "Retry2" is displayed on the display.



Easy Setup Procedure

Error messages

An error message is displayed if the measurements could not be completed automatically due to the speaker layout, the measuring environment, etc. Please check the following matters, reset the pertinent items, and measure again.
Be sure to turn off the AVR-1707's power before checking the speaker connections.

Press △ ▽ to select the items, then press ◁.

Example	Cause	Measures
Caution:SP None FL	① The speakers required for producing suitable reproduction have not been detected.	• Check that the pertinent speakers are properly connected.
Caution :Phase FL/R	② The speaker polarity is connected in reverse.	• Check the polarity of the pertinent speakers. • For some speakers, the screen below may be displayed even though the speakers are properly connected. If so, select "Skip◀".
Caution Overload <Exit	③ When accurate measurements cannot be made due to the input level of the microphone being too high.	• Set up the speakers so that their position is farther away from the listening position. • Lower the volume of the subwoofer speaker.

Connecting Other Sources

Cable indications

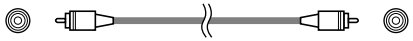
The hookup diagrams on the subsequent pages assume the use of the following optional connection cables (not supplied).

Audio cable

A Analog connections (Stereo)

Pin-plug cable

B Analog connections (Monaural, for subwoofer)

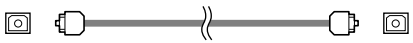


Pin-plug cable

C Digital connections (Coaxial)

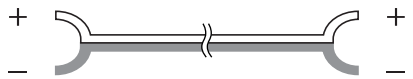
Coaxial cable (75 Ω/ohms pin-plug cable)

D Digital connections (Optical)



Optical fiber cable

E Speaker connections



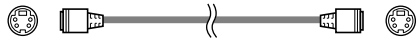
Speaker cable

Video cable

F Video connections

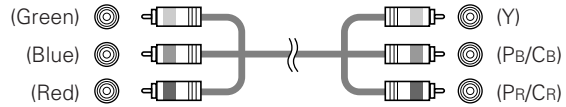
Video cable (75 Ω/ohms video pin-plug cable)

G S-Video connections



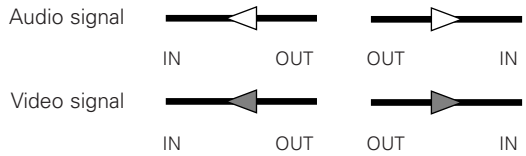
S-Video cable

H Component video connections



Component video cable

Signal direction



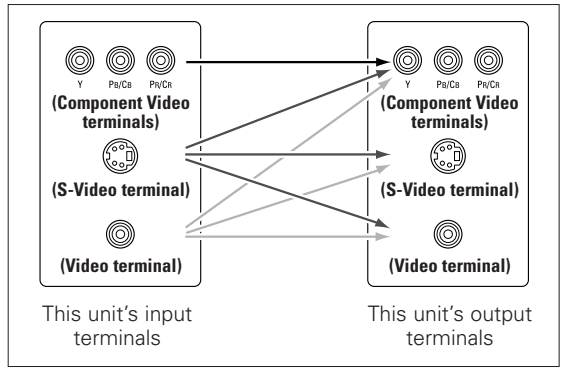
NOTE:

- Do not plug in the power supply cord until all connections have been completed.
- When making connections, also refer to the operating instructions of the other components.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Do not bundle power cords together with speaker cables. Doing so could result in humming or noise.

The video conversion function

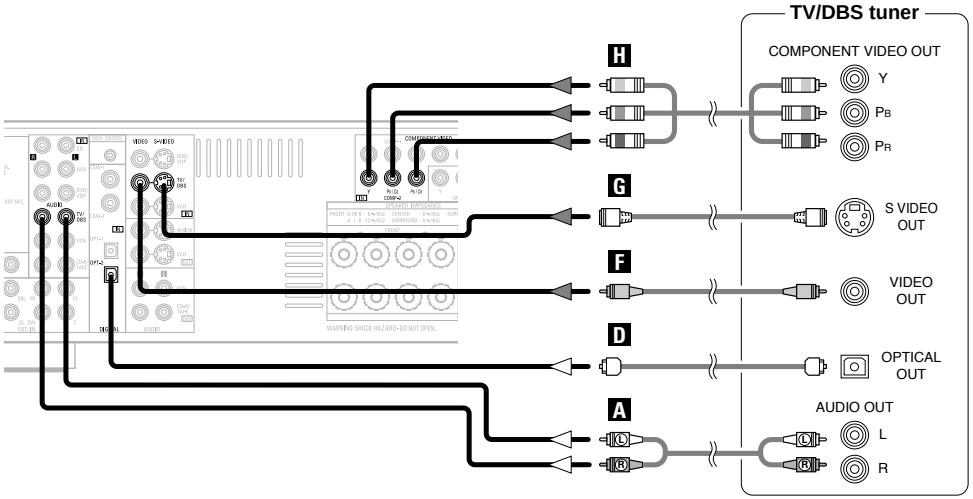
With the AVR-1707, the Video signal and the S-Video signal which were inputted are mutually converted. And also the Video signal and the S-Video signal which were inputted are converted into a higher quality.

The flow of the video signals.

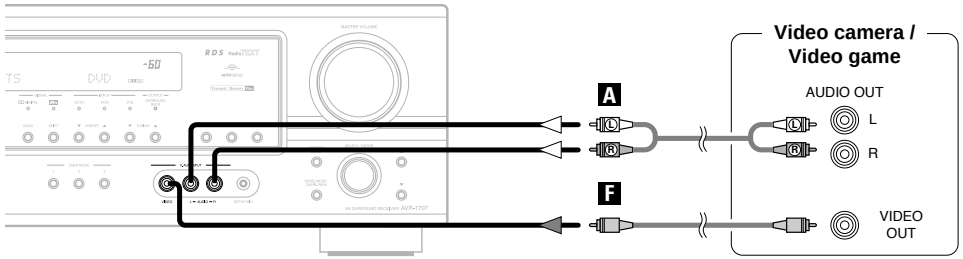


Connecting a TV/DBS tuner

- For best picture quality choose the component video connection to your TV or DBS tuner. S-Video and composite video outputs are also provided.
- To connect the digital audio output from the TV or DBS tuner, you can choose from either the coaxial or optical connections. If you choose to use the coaxial connection, it needs to be assigned. For more information about Digital Input Assignment (☞ page 39).

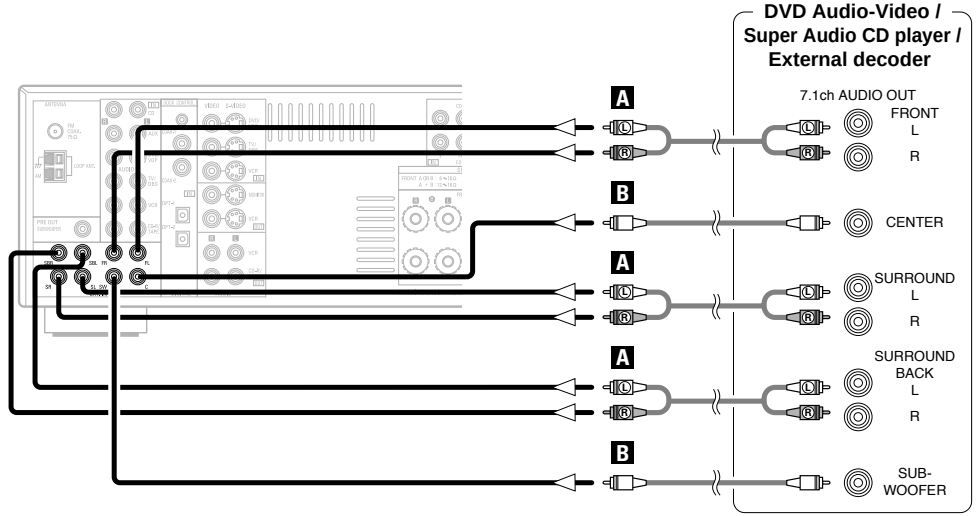


Connecting a video camera or video game



Connecting the external inputs (EXT. IN) terminals

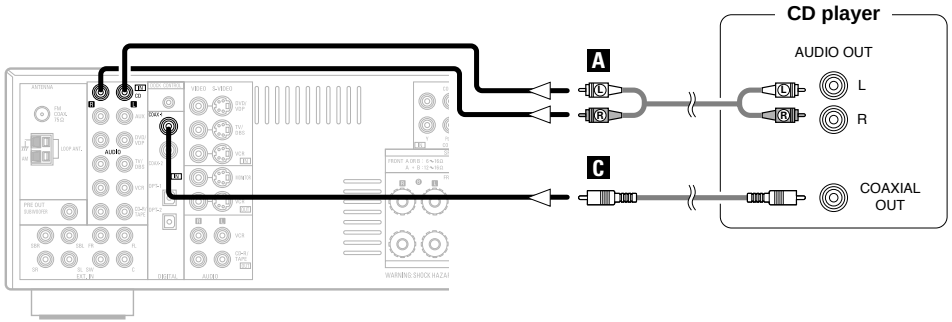
- These terminals are for inputting multi-channel audio signals from an outboard decoder, or a component with a different type of multi-channel decoder, such as a DVD-Audio player, or a multi-channel Super Audio CD player, or other future multi-channel sound format decoder.
- The video signal connection is the same as that for a DVD player (☞ page 9).
- For instructions on playback using the external input (EXT. IN) terminals (☞ page 18).



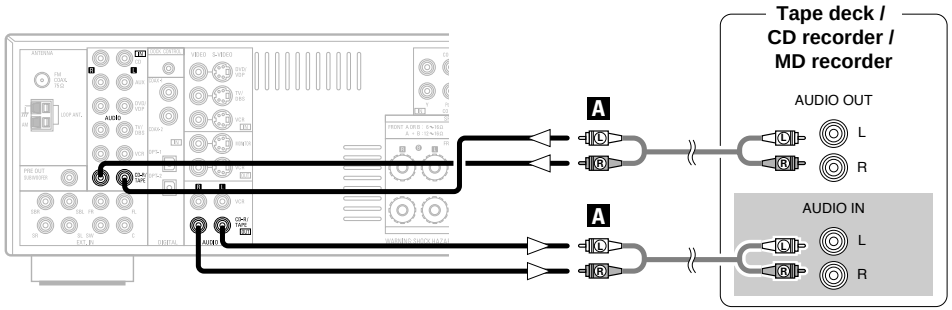
- With discs on which special copyright protection measures have been taken, however, the digital signals may not be output from the DVD player. In this case, connect the DVD player's analog multi-channel output to the AVR-1707's EXT. IN terminals for playback. Also refer to your DVD player's operating instructions.

Connecting a CD player

To connect the digital audio output from the CD player, you can choose from either the coaxial or optical connections. If you choose to use the optical connection, it needs to be assigned. For more information about Digital Input Assignment (☞ page 39).



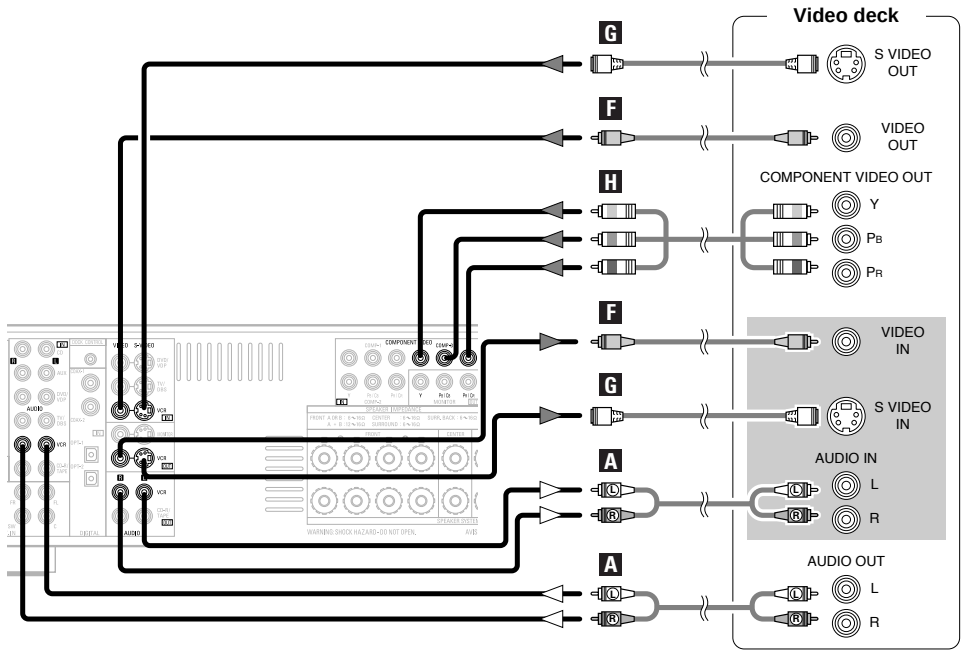
Connecting a tape deck, CD recorder or MD recorder



Connecting Other Sources

Connecting a VCR

- For best picture quality choose the component video connection to your VCR. S-Video and composite video outputs are also provided.
- If you wish to perform analog dubbing from a digital source, such as a DVD recorder to an analog recorder such as a cassette deck, you will need to connect the analog inputs and outputs as shown below, in addition to the digital audio connections.

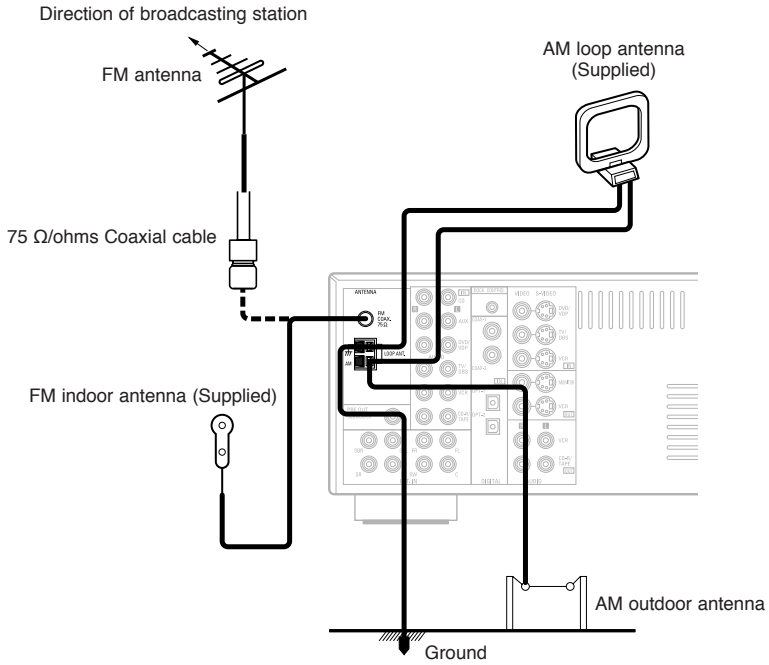


- When recording to a VCR, it is necessary that the type of cable used with the playback source equipment be the same type that is connected to the AVR-1707 VCR OUT terminal.

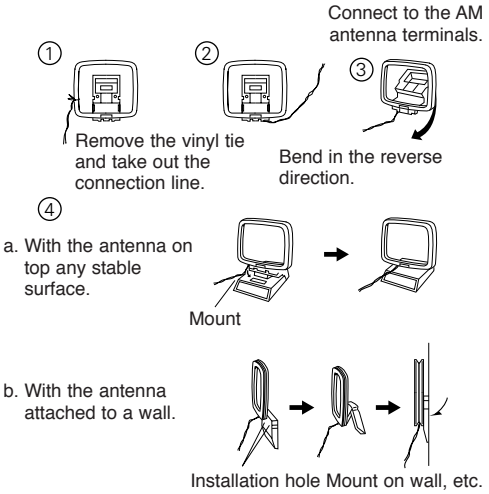
  Example: TV IN → S-Video cable : VCR OUT → S-Video cable
  TV IN → Video cable : VCR OUT → Video cable

Connecting the antenna terminals

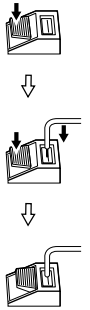
An FM antenna cable plug can be connected directly.



❑AM loop antenna assembly


Connect to the AM antenna terminals.
①
②
③
Remove the vinyl tie and take out the connection line.
Bend in the reverse direction.
④
a. With the antenna on top any stable surface.
Mount
b. With the antenna attached to a wall.
Installation hole Mount on wall, etc.

Connection of AM antennas



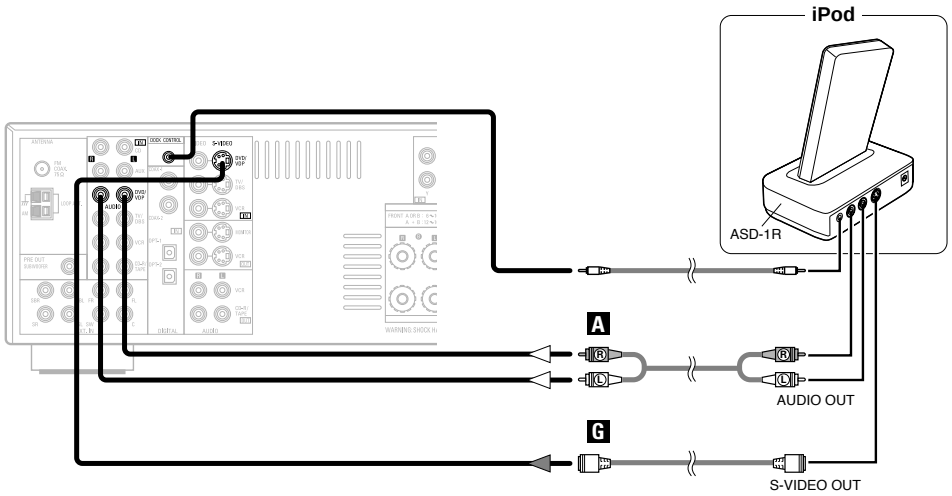
NOTE:

- Do not connect two FM antennas simultaneously.
- Even if an external AM antenna is used, do not disconnect the AM loop antenna.
- Make sure the AM loop antenna lead terminals do not touch metal parts of the panel.

Connecting the iPod®

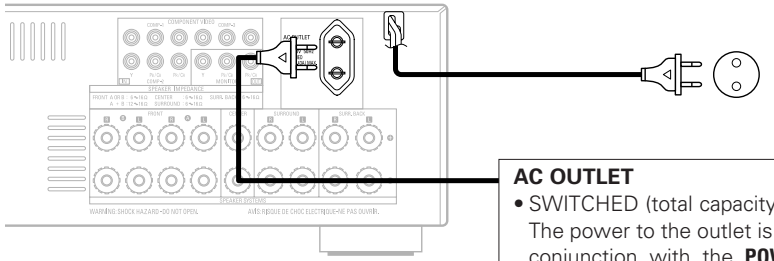
When using an iPod, you must connect the Control Dock for iPod (ASD-1R, sold separately) and the DOCK CONTROL jack on the AVR-1707 with a mini-jack and assign the iPod to any AUDIO and/or S-VIDEO terminal(s).
The diagram below shows an example of connections for when the iPod is assigned to the DVD/VDP terminal.

※ For instructions on assigning the iPod to a specific terminal, see "Setting the iPod Assignment" (☞ page 39).
※ For instructions on playing the iPod, see "Playing the iPod" (☞ page 33, 34).



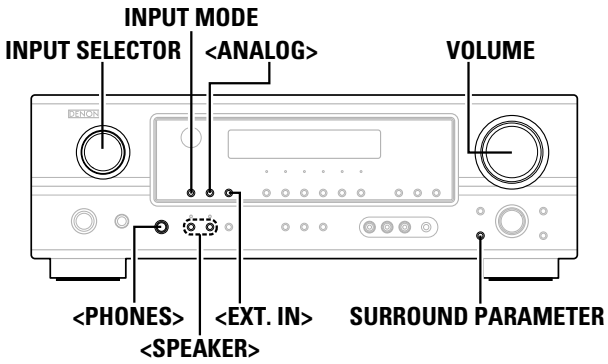
• The optional standard Control Dock for iPod is DENON ASD-1R sold separately.

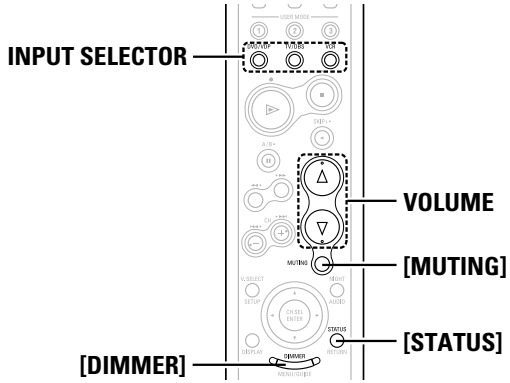
Connecting the power supply cord

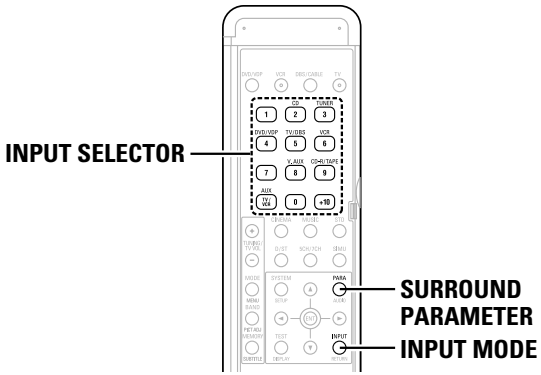


AC OUTLET
• SWITCHED (total capacity – 100 W (0.43 A))
The power to the outlet is turned on and off in conjunction with the **POWER** switch on the main unit, and when the power is switched between on and standby from the remote control unit.
No power is supplied from this outlet when this unit's power is at standby. Never connect equipment whose total power consumption exceeds 100 W (0.43 A).

NOTE:
• Insert the plugs securely. Incomplete connections will result in the generation of noise.
• Only use the AC OUTLET for audio equipment. Never use it for hair driers, monitors or other electrical appliances.







About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Basic Operation

Playing the input source

1 Use INPUT SELECTOR to select the input source you want to play.

2 Press INPUT MODE.

AUTO → PCM → DTS → EXT. IN※ ← ANALOG※ ←

※ Press **<ANALOG>** to select "ANALOG", **<EXT. IN>** to select "EXT. IN".

AUTO (All auto mode)**:**

The type of input signal is detected and the AVR-1707's surround mode is switched automatically. Can be selected for sources for which the Digital In Assignment mode (☞ page 39) is made.

The mode switches automatically to DTS/ Dolby Digital/ PCM.

The input switches to the analog input terminals is no digital signals are being input.

- The INPUT mode indicator lights.

PCM (exclusive PCM signal playback mode) and
DTS (exclusive DTS signal playback mode)**:**

Played when the various signals are input. Noise may be generated when a mode different from the input signal is set.

- The INPUT mode indicator lights.

ANALOG (exclusive analog audio signal playback mode) and
EXT. IN (External decoder input terminal selection mode)**:**

The signals input to the various input terminals are played.

※ To lower the subwoofer channel level in the EXT. IN mode, press **SURROUND PARAMETER** and select "SW. ATT".

For some players the playback level of the SW channel may seen strong. If so, set to "ON".

3 Start playback on the selected component.

※ For operating instructions, refer to the component's manual.

4 Use VOLUME to adjust the volume.

- The volume level is displayed on the master volume level display.

※ The volume can be adjusted between the range of –80 ~ 0 ~ 18 dB. Depending on the channel level settings and the different surround mode settings and when in the down-mix mode, it may not be possible to adjust the volume to 18 dB.

- Canceling the EXT. IN mode:
  Press **INPUT MODE** or **<ANALOG>** to switch to the desired input mode.
- To use the EXT. IN mode together with a picture, select the input source to which the video signal is connected first, then set the input mode.
- The "DIGITAL" indicator lights when digital signals are being input properly. If the "DIGITAL" indicator does not light, check whether the Digital In Assignment mode (☞ page 39) and connections are correct.

NOTE:

- When the input mode is set to the external input (EXT. IN), the surround mode cannot be set.
- In play modes other than the external input mode, the signals connected to these terminals cannot be played.

Cautions when playing DTS sources:

- For DTS sources, be sure to connect the device to the digital input terminal and set "AUTO" or "DTS" for the input source. Noise will be generated if you play in the "ANALOG" or "PCM" mode.
- When playing DTS signals in the "AUTO" mode, noise may be generated when you first start playing and during searching. If so, play in the "DTS" mode.

Turning the sound off temporarily (MUTING)

Press [MUTING].

※ You can adjust the muting level (☞ page 42).

- Canceling MUTING mode:
  To cancel the muting mode, either press **[MUTING]** or adjust the volume.

Listening over headphones

Connect the headphones to <PHONES>.
- No sound is produced from the speakers automatically.

NOTE:
- To prevent hearing loss, be careful not to raise the volume level excessively when using headphones.

Switching the front speakers

Press <SPEAKER> to turn the corresponding speaker pair on.

※ The front speaker A, B setting can be also be changed with **<SPEAKER>**.

Checking the currently playing program source, etc.

Press [STATUS].
- The current program source and various settings are indicated on the display.

Switching the brightness of the display

Press [DIMMER].

※ The brightness of the display can be adjusted in three steps. The display can also be turned off.

Using the surround modes

Types of surround modes and their features

The AVR-1707 is equipped with many surround modes. We recommend using the surround modes as described below in order to achieve the maximum effect for the specific signal source.

※ ▭ is a 6.1-channel/7.1-channel surround mode.

Sources recorded in Dolby Digital EX

DOLBY DIGITAL EX / +PLIIx* (☞ page 21)
- This mode is optimized for playing sources recorded in Dolby Digital EX.

Sources recorded in DTS-ES

DTS-ES DSCRT 6.1 / MTRX 6.1, +PLIIx* (☞ page 21)
- This is the optimum mode for playing sources recorded in DTS-ES.

Dolby Digital or DTS Surround (5.1 ch sources) 2 ch sources recorded in Dolby Surround

DOLBY DIGITAL / DOLBY DIGITAL+PLIIx* / DTS SURROUND / DTS 96/24 / DTS+PLIIx* / DTS+NEO:6 (☞ page 21)
- This mode is optimized for playing 5.1-channel or 7.1-channel music.
- For Dolby Surround recording sources, Dolby Pro Logic II playback is conducted.

Sources recorded in stereo
Sources recorded in monaural

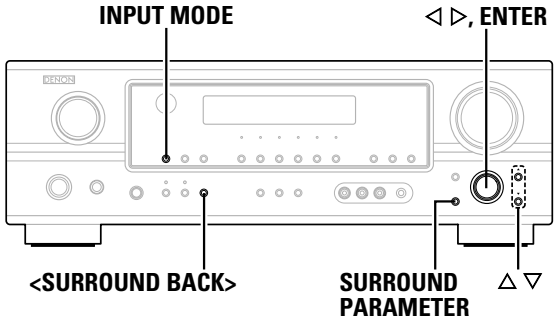
DIRECT / STEREO
- Effective for achieving pure playback.
- If there is no need for tone control or distribution of the low frequencies in function of the speaker configuration, select the DIRECT mode to achieve the best sound quality.

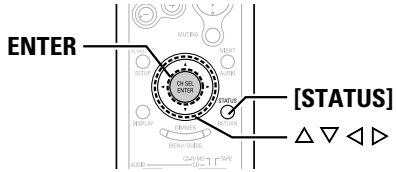
DENON Original Surround Modes (☞ page 27, 28)
- Select these for 7.1-channel playback with sources recorded in stereo or monaural.
- The effects are different for each of the surround modes. Select the one most suited for the source being used.

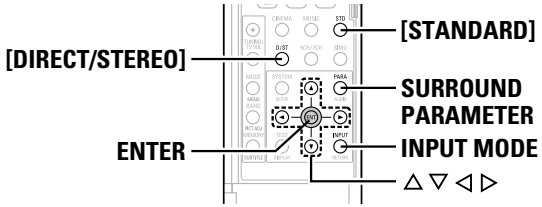
DTS NEO:6 (☞ page 23)
- This is a surround mode for playing 6.1- or 7.1-channel stereo sources developed by Digital Theater Systems.
- One of two playing modes, MUSIC (for music sources) or CINEMA (for movie sources), can be selected according to your preferences.

DOLBY PRO LOGIC IIx* (☞ page 22)
- Developed by Dolby Laboratories, this surround mode provides 7.1-channel surround sound with conventional stereo (2-channel) sources.
- Select CINEMA mode for movie surround soundtracks, MUSIC for music sources, and GAME for 2-channel game box audio sources.

- Surround modes marked with an asterisk (*) cannot be used when the surround back speaker is set to "NONE".
- The "+PLIIx Cinema" mode cannot be selected when only one surround back speaker is being used.







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[ ] : Buttons on the remote control unit
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Buttons on the main unit and remote control unit

Selecting the play mode (DIRECT/STEREO)

The AVR-1707 is equipped with two 2-channel playback modes exclusively for music. Select the mode to suit your tastes.

❑DIRECT mode

This mode is for playing with high quality sound. The audio signals are transmitted directly, without passing through the tone circuits, etc.

Press [DIRECT/STEREO] to select "DIRECT".

DIRECT ⟷ STEREO

❑STEREO mode

Use this mode to adjust the tone and achieve the desired sound.

Press [DIRECT/STEREO] to select "STEREO".

Basic Operation

Selecting the Dolby Digital and DTS Surround mode (only with digital input)

1 **Select an input source for which digital (COAXIAL or OPTICAL) is set (☞ page 39).**

2 **Press INPUT MODE to select "AUTO".**

3 **Press [STANDARD] to select "STANDARD (Dolby/DTS Surround)".**

4 **Play a program source with the DOLBY DIGITAL, dts mark.**

• " DOLBY DIGITAL " or " dts " lights, depending on the source.

※ Operate **<SURROUND BACK>** to switch Surround Back CH ON/OFF. The SURROUND BACK indicator lights when **<SURROUND BACK>** is on.

5 **Press SURROUND PARAMETER.**

6 **Press △ ▽ to select the item, then press ◁ ▷ to set.**

※ The parameter switches as shown below each time the button is pressed.

CINEMA EQ ↔ D.COMP. ↔ LFE ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK ↔ (CINEMA EQ)

※ If you do want the bass and treble to be adjusted, turn off the tone defeat mode.

CINEMA EQ.:
Use this if movie dialogues sound harsh to lower the treble sound.
※ Effective source mode
Dolby Pro Logic IIx / Dolby Pro Logic / Dolby Digital / DTS Surround / DTS NEO:6

D.COMP.:
The dynamic range is compressed. Select one of four modes: "OFF", "LOW", "MID" (middle) or "HIGH".
※ Effective source mode
Dolby Digital /
DTS (For DTS sources, only displayed for compatible software.)

LFE:
To play the various types of software properly, we recommend setting to the values shown below.
• To play Dolby Digital software: "0 dB"
• To play DTS movie software: "0 dB"
• To play DTS music software: "–10 dB"

TONE:
Adjust the tone control.
※ Can be set in surround modes other than direct mode.
※ Can be set separately for the different surround modes. (Adjusted together for the Dolby/DTS SURROUND modes.)

SB CH OUT:
Select the play mode or surround back channel playback method.
• The SURROUND BACK indicator lights.

(1) For multi-channel sources
- **SB OFF (OFF):** Not played.
- **NON MTRX:** Surround channel signal played.
- **MTRX ON:** Surround channel signal played with digital matrix processing.
- **ES MTRX:** DTS signal played with digital matrix processing.
- **ES DSCRT:** Signal included in DTS-ES discrete 6.1-channel sources played.
- **PLIIx CINEMA:** Decoded in Dolby Pro Logic IIx Cinema mode, surround back signal played.
  ※ Set the surround back speaker to "2sp" at Speaker Configuration mode (☞ page 43, 44).
- **PLIIx MUSIC:** Decoded in Dolby Pro Logic IIx Music mode, surround back signal played.
  ※ Set the surround back speaker to "1sp" or "2sp" at Speaker Configuration mode (☞ page 43, 44).

(2) For 2-channel sources
- **OFF:** Not played.
- **ON:** Surround channel signal played.

7 **Press ENTER or SURROUND PARAMETER.**

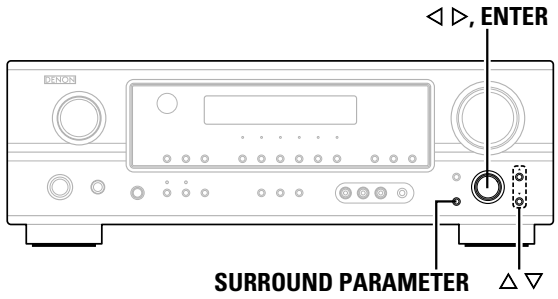
• Select "DEFAULT Y/N" and press ◁ to reset all the settings.

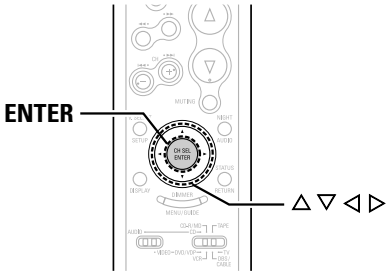
❑ Dialog normalization function

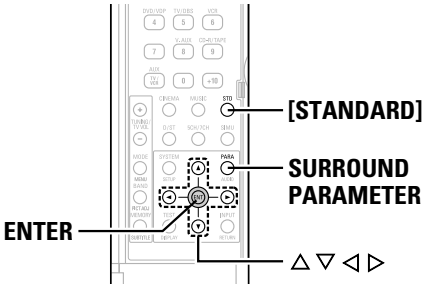
This operates automatically when playing Dolby Digital sources.
This is a function for automatically correcting the standard signal level for different program sources. The correction value can be checked by pressing **[STATUS]**.

```
Offset   -4dB
```

The numbers are the correction value when corrected to the standard level.







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[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Selecting the Dolby Pro Logic IIx (Pro Logic II) mode

It is possible to play analog input signals and digital input signals (2-channels) in the surround mode.
This mode is optimal for playing program sources recorded in Dolby Surround.

1 **Press [STANDARD] to select "DOLBY PLⅡx".**

DOLBY PLⅡx ⟷ DTS NEO:6

2 **Play a program source.**

3 **Press SURROUND PARAMETER.**

4 **Press ◁ ▷ to select the play mode.**

CINEMA:
This mode is suited for playing movie sources recorded in Dolby Surround and general sources recorded in stereo.

MUSIC:
This mode is suited for playing stereo music signals in the surround mode. With music signals, the sound field expansion differs according to the type of music, the recording conditions (live/studio), etc.. Because of this, the MUSIC mode offers a number of optional parameters for further adjusting the sound field.

GAME:
This mode is optimum for games. The GAME mode can only be used for 2-channel audio sources.

PL:
This mode is compatible with conventional Dolby Pro Logic sources.

5 **Press △ ▽ to select the item, then press ◁ ▷ to set.**

※ The mode switches as shown below each time the button is pressed.

- When the CINEMA mode:

MODE CINEMA ↔ CINEMA EQ ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

- When the MUSIC mode:

MODE MUSIC ↔ TONE DEFEAT ↔ SURROUND BACK ↔ DEFAULT ↔ CENTER WIDTH ↔ DIMENSION ↔ PANORAMA

- When the GAME mode:

MODE GAME ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

- When the DOLBY PRO LOGIC mode:

MODE DOLBY PL ↔ CINEMA EQ ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

※ If you do want the bass and treble to be adjusted, turn off the tone defeat mode.

When "MUSIC" mode is selected:

PANORAMA:
This is effective when the surround effect seems weak.

DIMENSION:
This shifts the center of the sound field image to the front or surround side. This compensates for when the sound field image seems unbalanced. (0 to 6, default : 3)

CENTER WIDTH:
A natural expansion to the front can be achieved by adjusting the center signal's output balance between the center and front channels. (0 to 7, default : 3)

6 **Press ENTER or SURROUND PARAMETER.**

Basic Operation

Selecting the DTS NEO:6 mode

It is possible to play analog input signals and digital input signals (2-channels) in the surround mode.

1 **Press [STANDARD] to select "DTS NEO:6".**

DOLBY PLIIx ⟷ DTS NEO:6

2 **Play a program source.**

3 **Press SURROUND PARAMETER.**

4 **Press ◁ ▷ to select the play mode.**

CINEMA:
This mode is optimum for playing movies. Decoding is performed with emphasis on separation performance to achieve the same atmosphere with 2-channel sources as with 6.1-channel sources.

MUSIC:
This mode is suited mainly for playing music.

5 **Press △ ▽ to select the item, then press ◁ ▷ to set.**

※ The mode switches as shown below each time the button is pressed.

- When the CINEMA mode:

MODE CINEMA ↔ CINEMA EQ ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

- When the MUSIC mode:

MODE MUSIC ↔ CENTER IMAGE ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

※ If you do want the bass and treble to be adjusted, turn off the tone defeat mode.

When "MUSIC" mode is selected:

CNTR. IMAGE:
The expansion of the center channel can be adjusted. (0.0 to 1.0, default : 0.3)

6 **Press ENTER or SURROUND PARAMETER.**

Surround modes and parameters

Surround Mode	Signals and adjustability in the different modes																		
	Channel output					Parameter (default values are shown in parentheses)													
	FRONT L/R	CENTER	SURROUND L/R	SURROUND BACK L/R	SUB-WOOFER	D. COMP *1	LFE *2	SB CH OUT	TONE CONTROL	CINEMA EQ.	MODE	ROOM SIZE	EFFECT LEVEL	Dolby Digital NIGHT mode	DELAY TIME	PRO LOGIC II/IIx MUSIC MODE only			NEO:6 MUSIC MODE only	EXT. IN only
																PANORAMA	DIMENSION	CENTER WIDTH	CENTER IMAGE	SW ATT
STEREO	O	×	×	×	◎	O (OFF)	O (0 dB)	×	O (0 dB)	×	×	×	×	O (OFF)	×	×	×	×	×	×
EXT. IN	O	◎	◎	◎	◎	×	×	×	×	×	×	×	×	×	×	×	×	×	×	O
DOLBY PRO LOGIC IIx	O	◎	◎	◎	◎	O (OFF)	×	O	O (0 dB)	O (NOTE 2)	O (CINEMA)	×	×	O (OFF)	×	O (OFF)	O (3)	O (3)	×	×
DOLBY PRO LOGIC II	O	◎	◎	×	◎	O (OFF)	×	O	O (0 dB)	O (NOTE 3)	O (CINEMA)	×	×	O (OFF)	×	O (OFF)	O (3)	O (3)	×	×
DTS NEO:6	O	◎	◎	◎	◎	O (OFF)	×	O	O (0 dB)	O (NOTE 2)	O (CINEMA)	×	×	O (OFF)	×	×	×	×	O (0.3)	×
DOLBY DIGITAL	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	O (OFF)	×	×	×	O (OFF)	×	×	×	×	×	×
DTS SURROUND	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	O (OFF)	×	×	×	×	×	×	×	×	×	×
5CH/7CH STEREO	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	×	×	×	×	O (OFF)	×	×	×	×	×	×
MONO MOVIE	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	×	×	O (Medium)	O (10)	O (OFF)	×	×	×	×	×	×
ROCK ARENA	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (NOTE 1)	×	×	O (Medium)	O (10)	O (OFF)	×	×	×	×	×	×
JAZZ CLUB	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	×	×	O (Medium)	O (10)	O (OFF)	×	×	×	×	×	×
VIDEO GAME	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	×	×	O (Medium)	O (10)	O (OFF)	×	×	×	×	×	×
MATRIX	O	◎	◎	◎	◎	O (OFF)	O (0 dB)	O	O (0 dB)	×	×	×	×	O (OFF)	O (30 msec)	×	×	×	×	×
VIRTUAL	O	×	×	×	◎	O (OFF)	O (0 dB)	×	O (0 dB)	×	×	×	×	O (OFF)	×	×	×	×	×	×

O : Signal
× : No signal
◎ : Turned on or off by speaker configuration setting

O : Adjustable
× : Not adjustable

O : Signal
× : No signal

O : Adjustable
× : Not adjustable

NOTE 1 : BASS +6 dB, TREBLE +4 dB
NOTE 2 : This parameter is available when the "MODE" is set to "CINEMA".
NOTE 3 : This parameter is available when the "MODE" is set to "CINEMA" or "PL".
*1: When playing Dolby Digital and DTS signals.
*2: When playing Dolby Digital, DTS, DVD-Audio and Super Audio CD.

❑Differences in surround mode names depending on the input signals

Button / Surround Mode	Note	Input signals: ANALOG	LINEAR PCM	DTS: DTS ES DSCRT (With Flag)	DTS: DTS ES MTRX (With Flag)	DTS: DTS (5.1ch)	DTS: DTS 96/24	DOLBY DIGITAL: DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL: DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL: DOLBY DIGITAL (5.1ch)	DOLBY DIGITAL: DOLBY DIGITAL (3, 4, 5ch)	DOLBY DIGITAL: DOLBY DIGITAL (2ch)	DVD-AUDIO: DVD-Audio (multi ch)	DVD-AUDIO: DVD-Audio (2ch)	DVD-AUDIO: 176.4/192kHz
STANDARD															
DTS SURROUND															
DTS ES DSCRT6.1	*1	×	×	●	×	×	×	×	×	×	×	×	×	×	×
DTS ES MTRX6.1	*1	×	×	×	●	×	×	×	×	×	×	×	×	×	×
DTS SURROUND		×	×	○	○	●	×	×	×	×	×	×	×	×	×
DTS 96/24		×	×	×	×	×	●	×	×	×	×	×	×	×	×
DTS + PLⅡx CINEMA	*2	×	×	○	○	○	○	×	×	×	×	×	×	×	×
DTS + PLⅡx MUSIC	*1	×	×	○	○	○	○	×	×	×	×	×	×	×	×
DTS + NEO:6	*1	×	×	×	○	○	○	×	×	×	×	×	×	×	×
DTS NEO:6 CINEMA		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DTS NEO:6 MUSIC		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY SURROUND															
DOLBY DIGITAL EX	*1	×	×	×	×	×	×	○	○	○	○	×	×	×	×
DOLBY DIGITAL		×	×	×	×	×	×	○	●	●	●	×	×	×	×
DOLBY DIGITAL+PLⅡx CINEMA	*2	×	×	×	×	×	×	●	○	○	○	×	×	×	×
DOLBY DIGITAL+PLⅡx MUSIC	*1	×	×	×	×	×	×	○	○	○	○	×	×	×	×
DOLBY PRO LOGIC Ⅱx CINEMA		○	○	×	×	×	×	×	×	×	×	●	×	○	×
DOLBY PRO LOGIC Ⅱx MUSIC		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY PRO LOGIC Ⅱx GAME		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY PRO LOGIC Ⅱ CINEMA		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY PRO LOGIC Ⅱ MUSIC		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY PRO LOGIC Ⅱ GAME		○	○	×	×	×	×	×	×	×	×	○	×	○	×
DOLBY PRO LOGIC		○	○	×	×	×	×	×	×	×	×	○	×	○	×

● : Mode selectable in default status
○ : Selectable mode
× : Non-selectable mode

NOTE :
*1: This mode is not available when the Surround Back speaker setup is set to “None”.
*2: This mode is not available when the Surround Back speaker setup is set to “1sp” or “None”.

Button / Surround Mode	Note	Input signals													
				DTS				DOLBY DIGITAL					DVD-AUDIO		
		ANALOG	LINEAR PCM	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1ch)	DOLBY DIGITAL (3, 4, 5ch)	DOLBY DIGITAL (2ch)	DVD-Audio (multi ch)	DVD-Audio (2ch)	176.4/ 192kHz
DIRECT															
DIRECT		○	○	○	○	○	○	○	○	○	○	○	×	○	○
DSP SIMULATION															
5CH/7CH STEREO	*1	○	○	○	○	○	○	○	○	○	○	○	○	×	×
MONO MOVIE		○	○	○	○	○	○	○	○	○	○	○	○	×	×
ROCK ARENA		○	○	○	○	○	○	○	○	○	○	○	○	×	×
JAZZ CLUB		○	○	○	○	○	○	○	○	○	○	○	○	×	×
VIDEO GAME		○	○	○	○	○	○	○	○	○	○	○	○	×	×
MATRIX		○	○	○	○	○	○	○	○	○	○	○	○	×	×
VIRTUAL		○	○	○	○	○	○	○	○	○	○	○	○	×	×
STEREO															
STEREO		●	●	○	○	○	○	○	○	○	○	○	○	●	●

● : Mode selectable in default status
○ : Selectable mode
× : Non-selectable mode

NOTE :
*1: If the Surround Back speaker setup is set to “None”, then “5CH STEREO” is displayed.

Using the DENON original surround modes

The AVR-1707 is equipped with a high performance digital signal processor (DSP) that uses digital signal processing to recreate sound fields artificially. One of seven surround modes can be selected according to the program source and parameters can be further adjusted to achieve even more realistic sound fields.

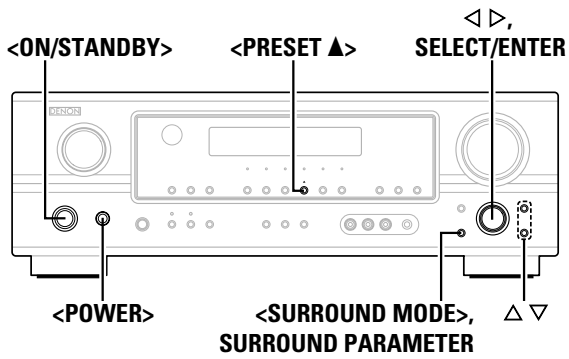
Types of surround modes and their features

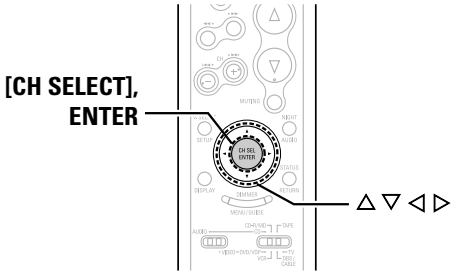
5CH/7CH STEREO (NOTE 1)	This mode lets you enjoy stereo sound with seven speakers. The front L (R) channel signals are played from the surround and surround back L (R) channels and only the in-phase component of the L and R channels is played on the center channel.
MONO MOVIE (NOTE 2)	This mode recreates the atmosphere of an expansive sound field for movie sources recorded in monaural.
ROCK ARENA	This mode recreates the atmosphere of a live concert in an arena.
JAZZ CLUB	This mode recreates the atmosphere of a live concert in a club with low ceilings, hard walls and the artist just in front of you.
VIDEO GAME	This mode provides a rich sense of presence for video games.
MATRIX	This mode recreates music sources recorded in stereo with an enhanced sense of expansion.
VIRTUAL	This mode can be used to enjoy surround sound with only front speakers or when using headphones.

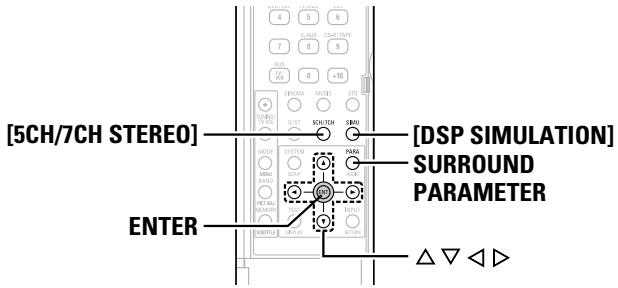
NOTE 1: "5CH STEREO" is displayed when "SB CH OUT" is set to "OFF".

NOTE 2: When playing sources recorded in monaural, the sound will be one-sided if signals are only input to one channel (left or right), so input signals to both channels. If you have a source component with only one audio output (monophonic camcorder, etc.) obtain a "Y" adapter cable to split the mono output to two outputs, and connect to the L and R inputs.

- Depending on the program source being played, the effect may not be very noticeable. In this case, try other surround modes, without worrying about their names, to create a sound field suited to your tastes.







About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Selecting the DSP surround simulation

❑To operate the surround mode and the surround parameters from the remote control unit

1 **Press [DSP SIMULATION].**

5CH/7CH STEREO※ → MONO MOVIE → ROCK ARENA → JAZZ CLUB → VIDEO GAME → MATRIX → VIRTUAL → 5CH/7CH STEREO※

※ The 5CH/7CH STEREO mode can be selected directly by pressing **[5CH/7CH STEREO]**.

2 **Press SURROUND PARAMETER.**

3 **Press △ ▽ to select the item, then press ◁ ▷ to set.**

※ The surround parameter switches in the following order each time **SURROUND PARAMETER** is pressed for the different surround modes.

- When the MONO MOVIE, ROCK ARENA, JAZZ CLUB and VIDEO GAME mode:

ROOM SIZE ↔ EFFECT LEVEL ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

- When the MATRIX mode:

DELAY ↔ TONE DEFEAT ↔ DEFAULT ↔ SURROUND BACK

- When the VIRTUAL mode:

TONE DEFEAT ↔ DEFAULT

※ If you do want the bass and treble to be adjusted, turn off the tone defeat mode.

SB CH OUT

- **ON:**
  Surround back channel played.
- **OFF:**
  Surround back channel not played.

ROOM SIZE:

Adjust the imaginary size of the recreated sound field space. (Does not express size of room in which played.)
There are five parameters: “small”, “med.s”, “medium”, “med.l” and “large”.

EFFECT LEVEL:

Adjust the strength of the surround effect.

DELAY TIME: (MATRIX mode only)

Adjust the delay time between “0 ms” and “110 ms”.

4 **Press ENTER or SURROUND PARAMETER.**

- Select “DEFAULT Y/N” and press ◁ to reset all the settings.

❑Operating the surround mode and the surround parameters from the main unit’s panel

1 **Use <SELECT/ENTER> to select the surround mode.**

DIRECT ↔ STEREO ↔ DOLBY PRO LOGIC IIx ↔ 5CH/7CH STEREO ↔ DTS NEO:6 ↔ MONO MOVIE ↔ ROCK ARENA ↔ JAZZ CLUB ↔ VIRTUAL SURROUND ↔ MATRIX ↔ VIDEO GAME ↔ DIRECT

※ To select the surround mode while adjusting the surround parameters, tone defeat or tone control, press **<SURROUND MODE>**, then operate the selector.

2 **Perform steps 2 to 4 under “Selecting the DSP surround simulation”.**

Setting the tone control

Adjust the bass and treble to suit your tastes.

❑Adjusting the tone

1 **Press SURROUND PARAMETER.**

2 **Press △ ▽ to select "TONE DEF. ON".**

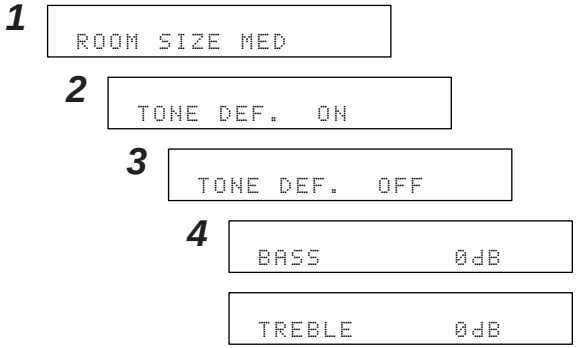
※ In the direct mode, "TONE" cannot be selected.

3 **Press ▷ to select "OFF".**

4 **Press △ ▽ to select "Bass" or "Treble", then press ◁ ▷ to set the level.**

※ Can be adjusted within the range of –10 dB to +10 dB.

5 **Press ENTER or SURROUND PARAMETER.**



❑When you do not want to adjust the tone

Set "Tone Defeat" to "ON" at step 3 in "Adjusting the tone".

Adjusting the speaker volume

1 **Press [CH SELECT].**

2 **Press [CH SELECT] to select the speaker.**

※ The settable speaker switches each time this button is pressed.

3 **Press [◁ ▷] to adjust the volume.**

※ The SW channel level can be turned off by decreasing it one step from –12 dB.

OFF ↔ –12 dB ↔ +12 dB

Listening to the radio

Check that the remote control unit is set to "AUDIO".

Auto preset memory

This unit is equipped with a function for automatically searching for FM broadcast stations and storing them in the preset memory.

1 **Switch off the unit using <POWER>.**

2 **Hold <PRESET ▲> and press <POWER>.**

- The unit automatically begins searching for FM broadcast stations.

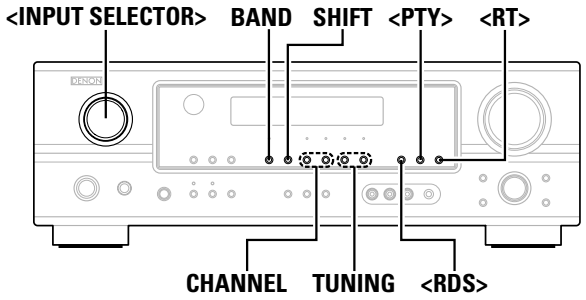
※ When the first FM broadcast station is found, that station is stored in the preset memory at channel A1.
Subsequent stations are automatically stored in order at preset channels A1 to A8, B1 to B8, C1 to C8, D1 to D8, E1 to E8, F1 to F8 and G1 to G8 for a maximum of 56 stations.

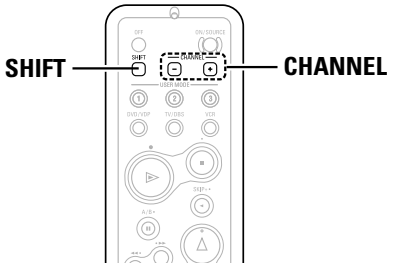
※ Channel A1 is tuned in after the auto preset memory operation is completed.

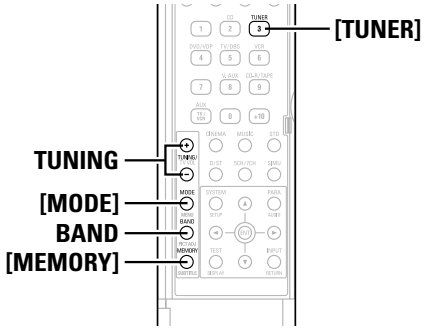
- If an FM station cannot be preset automatically due to poor reception, use the "Manual tuning" operation to tune in the station, then preset it using the manual "Preset memory" operation.
- To interrupt this function, press **<ON/STANDBY>**.

❑Default settings

Auto tuner presets	
A1 ~ A8	87.5 / 89.1 / 98.1 / 108.0 / 90.1 / 90.1 / 90.1 / 90.1 MHz
B1 ~ B8	522 / 603 / 999 / 1404 / 1611 kHz, 90.1 / 90.1 / 90.1 MHz
C1 ~ C8	90.1 MHz
D1 ~ D8	90.1 MHz
E1 ~ E8	90.1 MHz
F1 ~ F8	90.1 MHz
G1 ~ G8	90.1 MHz







About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Auto tuning

1 Use **<INPUT SELECTOR>** to select "TUNER" or press **[TUNER]**.

2 Press **BAND** to select "AM" or "FM".

3 Press **[MODE]** to set the auto tuning mode.
- The "AUTO" indicator lights.

4 Press **TUNING**.
- Automatic searching begins.

- If tuning does not stop at the desired station, use to the "Manual tuning" operation.

Manual tuning

1 Use **<INPUT SELECTOR>** to select "TUNER" or press **[TUNER]**.

2 Press **BAND** to select "AM" or "FM".

3 Press **[MODE]** to set the manual tuning mode.

※ Check that the display's "AUTO" indicator turns off.

4 Press **TUNING**.

※ The frequency changes continuously when the button is held in.

- When the manual tuning mode is set, FM stereo broadcasts are received in monaural and the "STEREO" indicator turns off.

Preset memory

1 Use the "Auto tuning" or "Manual tuning" operation to tune in the station to be preset in the memory.

2 Press **[MEMORY]**.

3 Press **SHIFT** to select the desired memory block (A to G).

4 Press **CHANNEL** to select the desired preset channel (1 to 8).

5 Press **[MEMORY]** again.
- Store the station in the preset memory.

- To preset other channels, repeat steps 2 to 5.
  A total of 56 broadcast stations can be preset — 8 stations (channels 1 to 8) in each of blocks A to G.
- The memory block can also be selected by pressing **SHIFT**.

Recalling preset stations

1 Press **SHIFT** to select the memory block.

2 Press **CHANNEL** to select the desired preset channel.

RDS (Radio Data System)

RDS (works only on the FM band) is a broadcasting service which allows a station to send additional information along with the regular radio program signal.
The following three types of RDS information can be received with this unit:

❑Program Type (PTY)

PTY identifies the type of RDS program.
The program types and their displays are as follows:

NEWS	News	**WEATHER**	Weather
AFFAIRS	Current Affairs	**FINANCE**	Finance
INFO	Information	**CHILDREN**	Children's programmes
SPORT	Sports	**SOCIAL**	Social Affairs
EDUCATE	Education	**RELIGION**	Religion
DRAMA	Drama	**PHONE IN**	Phone In
CULTURE	Culture	**TRAVEL**	Travel
SCIENCE	Science	**LEISURE**	Leisure
VARIED	Varied	**JAZZ**	Jazz Music
POP M	Pop Music	**COUNTRY**	Country Music
ROCK M	Rock Music	**NATION M**	National Music
EASY M	Easy Listening Music	**OLDIES**	Oldies Music
LIGHT M	Light Classical	**FOLK M**	Folk Music
CLASSICS	Serious Classical	**DOCUMENT**	Documentary
OTHER M	Other Music		

❑Traffic Program (TP)

TP identifies programs that carry traffic announcements.
This allows you to easily find out the latest traffic conditions in your area before leaving home.

❑Radio Text (RT)

RT allows RDS stations to send text messages that appear on the display.

NOTE:
- The operations described below using **<RDS>**, **<PTY>** and **<RT>** will not function in areas in which there are no RDS broadcasts.

RDS search

Use this function to automatically tune to FM stations that provide the RDS service.

1 **Use <INPUT SELECTOR> to select "TUNER" or press [TUNER].**

2 **Press <RDS> until "RDS SEARCH" appears on the display.**

3 **Press CHANNEL.**
- The search for RDS stations begins automatically.

※ If no RDS stations are found with the above operation, all the reception bands are searched.
※ When a broadcast station is found, that station's name appears on the display.

4 **To continue searching, repeat step 3.**

※ If no RDS station is found when all the frequencies have been searched, "NO RDS" is displayed.

PTY search

Use this function to find RDS stations broadcasting a designated program type (PTY).
For a description of each program type, refer to "Program Type (PTY)".

1 **Use <INPUT SELECTOR> to select "TUNER" or press [TUNER].**

2 **Press <RDS> until "PTY SEARCH" appears on the display.**

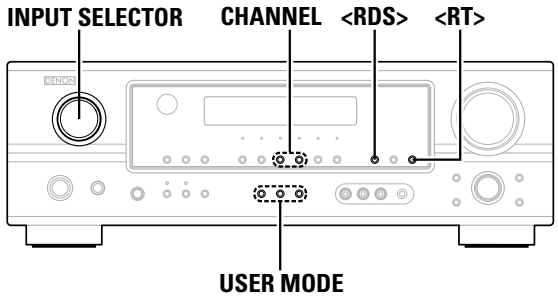
3 **Watching the display, press <PTY> to call out the desired program type.**

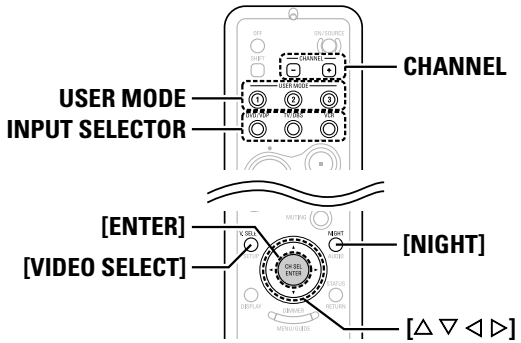
4 **Press CHANNEL.**
- PTY search begins automatically.

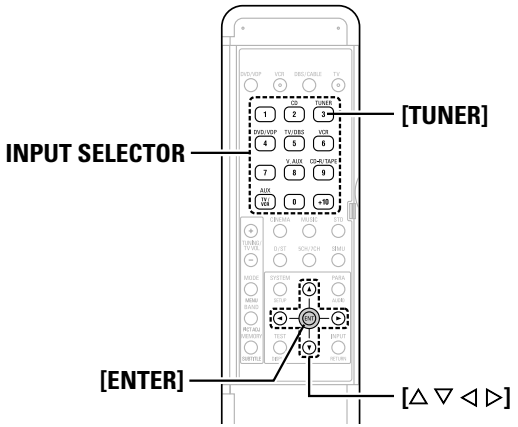
※ If there is no station broadcasting the designated program type with the above operation, all the reception bands are searched.
※ The station name is displayed on the display after searching stops.

5 **To continue searching, repeat step 4.**

※ If no station broadcasting the designated program type is found when all the frequencies have been searched, "NO PROGRAMME" is displayed.







About the button names in this explanation

< **>** : Buttons on the main unit

[**]** : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

TP search

Use this function to find RDS stations broadcasting traffic programs (TP stations).

1 **Use <INPUT SELECTOR> to select "TUNER" or press [TUNER].**

2 **Press <RDS> until "TP SEARCH" appears on the display.**

3 **Press CHANNEL.**

• TP search begins automatically.

※ If no TP station is found with the above operation, all the reception bands are searched.

※ The station name is displayed on the display after searching stops.

4 **To continue searching, repeat step 3.**

※ If no other TP station is found when all the frequencies have been searched, "NO PROGRAMME" is displayed.

RT (Radio Text)

"RT" appears on the display when radio text data is received.

1 **Use <INPUT SELECTOR> to select "TUNER" or press [TUNER].**

2 **Press <RT>.**

※ While receiving an RDS broadcast station, the text data broadcast from the station is displayed.

※ To turn the display off, press **<RT>** again.

※ If no text data is being broadcast, "NO TEXT DATA" is displayed.

Advanced Operation

Night mode

The night mode can be set when playing Dolby Digital sources. The dialogues are easier to hear at night and when listening with the volume low.

Press [NIGHT].

- Canceling night mode:
  Press **[NIGHT]** again.
- When the night mode is set to "ON", the "D.COMP" surround parameter can not be selected.

User mode function

The AVR-1707 is equipped with a function for storing the selected input source, the auto surround mode and input mode in the memory and selecting these settings when you want to use them.

Storing the settings in the memory

1 **The following are stored in the memory:**
① **Currently set input source**
② **Currently set surround mode**
③ **Currently set input mode**

2 **Press USER MODE until "Memory" is displayed.**

Calling the settings out

Press USER MODE at which the settings you want to call out are stored.

Combining the currently playing sound with the desired image (VIDEO SELECT function)

Press [VIDEO SELECT] until the desired image appears on the monitor.

- To cancel, press **[VIDEO SELECT]** to select "SOURCE".
- The video source selected with the video select function is stored in the memory for the different input sources.

Personal memory plus function

The surround mode last selected and the input mode setting are stored individually for the different input sources.

※ The surround parameters, tone control settings and playback level balance for the different output channels are memorized for each surround mode.

Playing the iPod®

The music recorded on the iPod can be played when using a Control Dock for iPod (ASD-1R, sold separately). The iPod can be controlled using the buttons on the main unit and the remote control unit.

Made for iPod

iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

※ With the iPod, non-copyrighted contents and contents that may be legally reproduced or played may be reproduced and played by individuals for their personal use. Violating copyrights is prohibited by law.

1 **Connect the AVR-1707 and iPod using the Control Dock for iPod (ASD-1R) (☞ page 17).**

2 **Assign the input terminal at "Setting the iPod Assignment" (☞ page 39).**

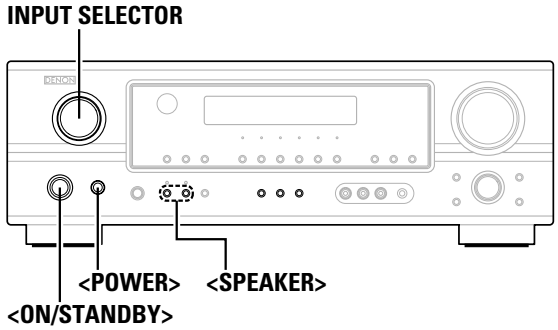
3 **Use INPUT SELECTOR to select the function assigned in step 2.**
- Display "Remote iPod" on the main unit's display.

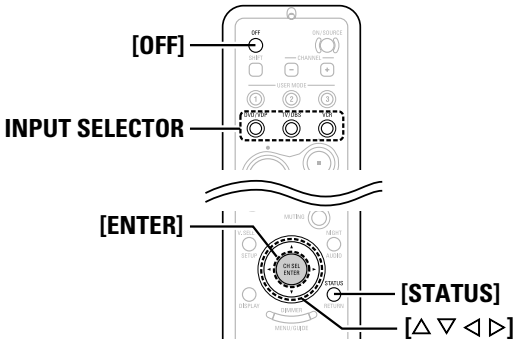
※ If the screens above are not displayed, the iPod may not be properly connected. Check the connections and settings.

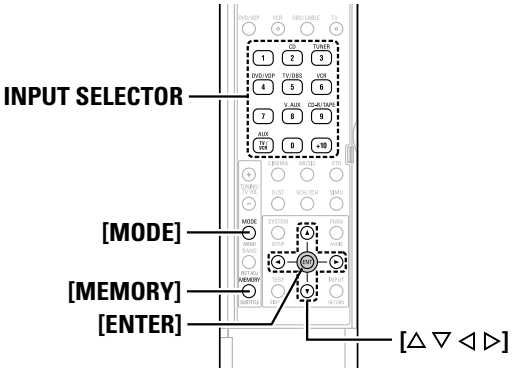
4 **Operate using [△ ▽ ◁ ▷] and [ENTER] while watching the iPod's screen.**

- The optional standard Control Dock for iPod is DENON ASD-1R sold separately.

NOTE:
- DENON will accept no responsibility whatsoever for loss or damage of data on an iPod occurring when the iPod is used connected to the AVR-1707.
- Some of the functions may not operate, depending on the type of iPod and the software version.







About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Listening to music in the Browse mode

1 **Press [△ ▽] to select the music file, then press [ENTER] or [▷].**

※ Press **[◁]** to return to the music menu screen.

2 **Press [ENTER] or [▷].**

• Playback starts.

Pause:

Press **[ENTER]** during playback.

Press again to resume.

Manual search:

Press and hold in **[△ ▽]** during playback.

• △: Fast reverse

• ▽: Fast forward

Track search:

Press **[△ ▽]** during playback.

• △: Move to beginning of previous track

• ▽: Move to beginning of next track

Stop:

Press **[ENTER]** for at least 2 seconds during playback.

Repeat play:

Press **[MODE]**.

The mode switches as follows each time **[MODE]** is pressed.

• **RPT One:** Single track repeat

• **RPT All:** All track repeat

Shuffle play:

Press **[MEMORY]**.

The mode switches as follows each time **[MEMORY]** is pressed.

• **SFL Songs:** Single track shuffle

• **SFL Albums:** Album shuffle

※ The mode switches between the Remote mode and the Browse mode if **[MODE]** is pressed for at least 2 seconds.
In the Remote mode, only **[△ ▽ ◁ ▷]** and **[ENTER]** can be used.

- When **[STATUS]** is pressed during playback, the front panel display switches between the title name, artist name and album name.
- Depending on the iPod's software version, it may not be possible to operate the iPod from the AVR-1707. Use the latest version of the software. Information on the latest version of the software can be obtained on the Apple Computer website.
- With the AVR-1707 it is possible to display folder names and file names on the screen like titles. The AVR-1707 can display up to 64 characters, consisting of numbers, capital letters and small letters. A "?" mark is displayed in place of non-compatible characters.

Viewing still pictures and videos (only for iPods equipped with the slideshow / video function)

Use this procedure to view photo and video data stored on the iPod on a monitor.

1 **Press [MODE] for at least 2 seconds to switch from the Browse mode to the Remote mode.**
- "Remote iPod" is displayed on the AVR-1707's display.

2 **Watching the iPod's screen, press [△ ▽] to select "Photos" or "Video", then press [ENTER] or [▷].**
- The iPod's photo and video data are displayed on the monitor.

- To output photo or video data recorded on the iPod to the monitor, the iPod's "TV Out" setting (under "Video Settings") must be set to "ON".
  For details, refer to the iPod's operating instructions.

Disconnecting the iPod

Press <ON/STANDBY> or [OFF] and set the AVR-1707's power to the standby mode.

※ The iPod can be disconnected after switching to a function other than the one to which the iPod input is assigned.

Recording the program source (recording the source currently being monitored)

1 **Select the input source to be played.**

2 **Select the input mode and play (surround) mode.**

3 **Start recording on the tape or video deck.**

※ For instructions, refer to the component's operating instructions.

- The AUDIO IN's signal selected with **INPUT SELECTOR** are output to the CD-R/TAPE and VCR AUDIO OUT terminals.
- Digital signals are not output to the audio output terminals.

❑Simultaneous recording

The signals of the source selected with **INPUT SELECTOR** are output simultaneously to the CD-R/TAPE and VCR REC OUT terminals. If a total of two tape and/or video decks are connected and set to the recording mode, the same source can be recorded simultaneously on every decks.

About the memory functions

❑Last function memory

The various settings set when the AVR-1707's power is switched to standby are stored in the memory. When the power is turned back on, the settings made when the power was switched to standby are recalled.

❑Backup memory

The various settings are stored in the memory for about 1 week, even when the power is turned off or the power cord is unplugged.

Initialization of the microprocessor

If the indication on the display is not normal or if the operation of the unit is not correct, then the microprocessor should be reset by the following procedure.

1 **Switch off the unit using <POWER>.**

2 **Keep both <SPEAKER> (A and B) depressed and turn on the unit by pressing <POWER>.**

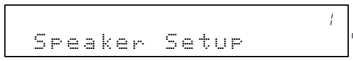
3 **Check that the entire display is flashing at 1-second intervals and release the buttons.**
- The microprocessor will be initialized.

- If step 3 does not work, start over from step 1.
- If the microprocessor has been reset, all the button settings are reset to the default values (the values set upon shipment from the factory).

Advanced Setup – Part 1

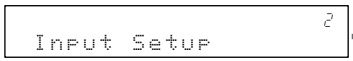
System setup items and default values

1. Speaker Setup



Item No.	Items		Default settings					Page
1 ~ 6	**Speaker Configuration mode**	Automatically set the output component and properties for the various channels according to the combination of speakers to be actually used for surround playback.	Front Sp.	Center Sp.	Subwoofer	Surround Sp.	Surround Back Sp.	43, 44
			Large	Small	Yes	Small	Small / 2sp	
7	**Subwoofer Mode Setup**	Select the method of playback of the subwoofer for playing the low bass signals.	LFE (Normal)					44
8 ~ 15	**Distance mode**	This parameter is for optimizing the timing with which the audio signals are produced from the speakers and subwoofer according to the listening position.	Front L & R	Center	Subwoofer	Surround L & R	Surround Back	44, 45
			3.6 m	3.6 m	3.6 m	3.0 m	3.0 m	
16	**Crossover Frequency mode**	Set the frequency (Hz) below which the bass sound of the various speakers is to be output from the subwoofer.	80 Hz					45
17	**Test Tone mode**	Set the volume of the various speakers so that the sound output from the speakers and the subwoofer seems to have the same volume level.	Front L	Front R	Center	Surround L	Surround R	Surround Back L	Surround Back R	Subwoofer	45
			0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	

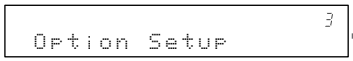
2. Input Setup



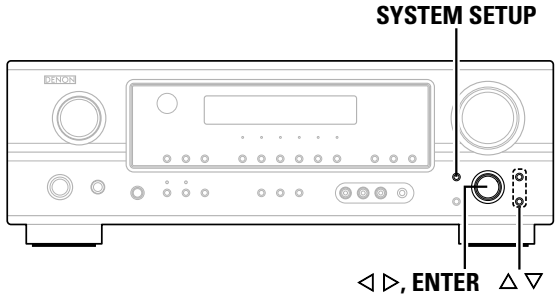
Item No.	Items			Default settings				Page
1 ~ 4	**Digital In Assignment mode**	This assigns the different input sources for the digital input terminals.	**Digital Inputs**	COAX 1	COAX 2	OPT 1	OPT 2	39
			Input source	CD	AUX	DVD	TV	
5	**iPod Assignment mode**	It is possible to assign the Control Dock for iPod's (ASD-1R, sold separately) audio and/or video signals to any input terminals on the AVR-1707 and play them.		iPod Function = OFF				39
6 ~ 8	**Component In Assignment mode**	This assigns the different input sources for the component video input terminals .		Comp 1	Comp 2	Comp 3		39
				DVD	TV	VCR		
9 ~ 12	**Video Convert mode**	This sets whether or not to use the video conversion function.		ON				40
13	**Audio Delay mode**	Adjust the time delay between the video and audio signals.		0 ms				40
14	**EXT. IN Subwoofer Level mode**	Sets the playback level of the analog signal that was input to the EXT. IN subwoofer terminal.		SW Level = +15 dB				40
15	**Auto Preset Memory mode**	Up to 56 FM stations can be preset automatically.		A1 ~ A8	87.5/89.1/98.1/108.0/90.1/90.1/90.1/90.1 MHz			41
				B1 ~ B8	522/603/999/1404/1611 kHz, 90.1/90.1/90.1 MHz			
				C1 ~ C8	90.1 MHz			
				D1 ~ D8	90.1 MHz			
				E1 ~ E8	90.1 MHz			
				F1 ~ F8	90.1 MHz			
				G1 ~ G8	90.1 MHz			

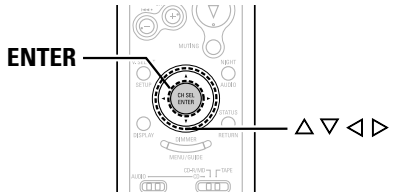
Advanced Setup – Part 1

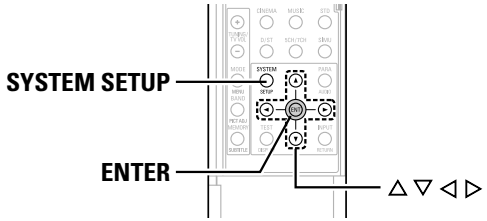
3. Option Setup



Item No.	Items		Default settings	Page
1	**Power Amp Assignment mode**	To suit your preference, a surround back channel's power amplifier can be assigned to the front channel ("Front A" or "Front B") for bi-amp playback.	S. Back	41
2 ~ 4	**Volume Control mode**	This sets the volume level of output.	Vol.Limit = OFF P. On Lev. = LAST Mute Lev. = FULL	42
5 ~ 11	**2ch Direct/Stereo mode**	Make the 2-channel direct mode and stereo mode speaker settings.	OFF	42
12	**Auto Surround mode**	Set whether or not to store the surround mode last played for the input signal.	Auto Surround Mode = ON	43







About the button names in this explanation

< > : Buttons on the main unit

[ ] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Use System Setup to customize a variety of settings to suit your listening environment.

For the contents of a system menu and the initial setting of this unit (☞ page 36, 37).

Navigating through the System Setup items

1 Press **SYSTEM SETUP**, then press **ENTER**.

2 Press ◁ ▷ to select the item you want to set, then press **ENTER**.

3 To change the setting:
Press △ ▽ to select the item you want to change, then press ◁ ▷ to change the setting.

4 Press **ENTER** or ▽ to confirm the new settings.

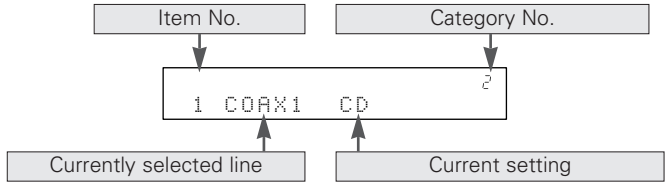
5 Press **SYSTEM SETUP** to move the next category.

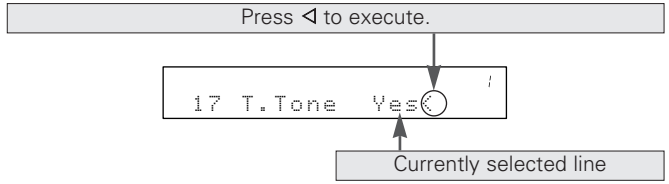
※ To cancel the system setup mode, press **SYSTEM SETUP** again.

1
```
*System Setup
```
2
```
1.Sp 2.In 3.Op
```
```
Speaker Setup
```
3
```
1 Front   Large
```
5
```
1.Sp 2.In 3.Op
```

About the front display

The AVR-1707 is equipped with an alpha numeric front panel display that can also be used to check and adjust settings. Some representative front display examples are shown below.





Input Setup

Setting the Digital In Assignment

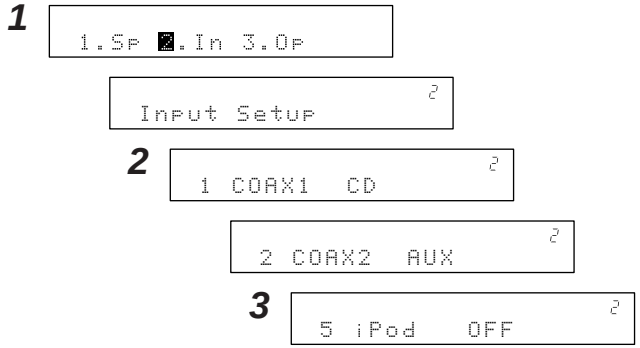
This assigns the different input sources for the digital input terminals.

1 **Press ◁ ▷ to select "2. In", then press ENTER.**

2 **Press △ ▽ to select the input terminals, then press ◁ ▷ to set.**

CD, AUX, DVD, TV, VCR, V.AUX, CD-R:
Assign the different source according to the devices connected to the AVR-1707's input terminals.

3 **Press ENTER or ▽ to enter the setting and switch to the iPod Assignment setting.**



- Digital input terminal assignment not possible for "TUNER".
- It is not possible to make the Digital In Assignment mode settings for the function assigned at iPod Assignment mode.

Setting the iPod Assignment

It is possible to assign the Control Dock for iPod's (ASD-1R, sold separately) audio and video signals to any input terminals on the AVR-1707 and play them.

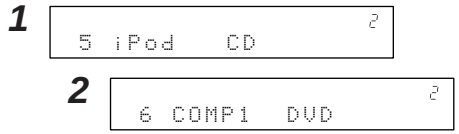
1 **Press ◁ ▷ to set.**

CD, AUX, CD-R:
When using a Control Dock for iPod, it is possible to connect with the audio input terminal of the assigned function.

DVD, TV, VCR, V.AUX:
When using a Control Dock for iPod, it is possible to connect with the audio and video input terminals of the assigned function.

OFF:
This is the factory default setting.

2 **Press ENTER or ▽ to enter the setting and switch to the Component In Assignment setting.**



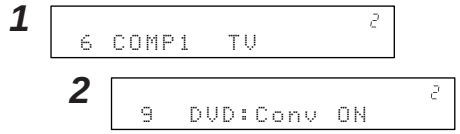
Setting the Component In Assignment

This assigns the different input sources for the component video input terminals.

1 **Press △ ▽ to select the input terminals, then press ◁ ▷ to set.**

DVD/VDP, TV/DBS, VCR, V.AUX:
Assign the different sources to "Comp1", "Comp2" or "Comp3".

2 **Press ENTER or ▽ to enter the setting and switch to the Video Convert setting.**



- It is not possible to make the Component In Assignment mode settings for the function assigned at iPod Assignment mode.

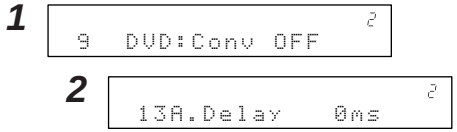
Setting the Video Convert

This sets whether or not to use the video conversion function.

1 Press ◁ ▷ to set.

ON, OFF:
Select "ON" to use the video conversion function, "OFF" if you do not want to use it.

2 Press ENTER or ▽ to enter the setting and switch to the Audio Delay setting.



- Down-converting from the component video signal to the S-Video and composite video signal is not possible, so when not using the component video monitor output terminal connect the player using the S-Video or composite video input terminal (☞ page 13).
- When a non-standard video signal from a game machine or some other source is input, the video conversion function might not operate. If this happens, please set the conversion mode to "OFF".
- When the video conversion function has been used, information such as that of text broadcasts which has been added to the video signal might not be output. If this happens, please set the conversion mode to "OFF".

Setting the Audio Delay

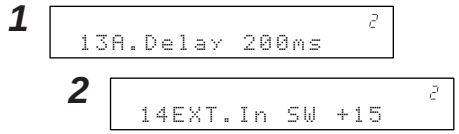
Adjust the time delay between the video and audio signals.

1 Press ◁ ▷ to set.

0 ms ~ 200 ms:
Adjust the time delay.

※ With a movie source, for example, adjust so that the movement of the actors' lips is synchronized with the sound.

2 Press ENTER or ▽ to enter the setting and switch to the EXT. IN Subwoofer Level setting.



- By default, this menu is not displayed when no digital signals are being input.
- The audio delay setting does not apply when playing in the EXT. IN mode or in the analog input direct mode or stereo mode (Front speaker setting "Large").

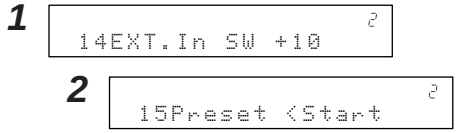
Setting the EXT. IN Subwoofer Level

Sets the playback level of the analog signal that was input to the EXT. IN subwoofer terminal.

1 Press ◁ ▷ to set.

+15 dB, +10 dB, +5 dB, 0 dB:
Sets the playback level of the analog signal that was input to the EXT. IN subwoofer terminal.

2 Press ENTER or ▽ to enter the setting and switch to the Auto Preset Memory setting.



Setting the Auto Preset Memory

Up to 56 FM stations can be preset automatically (☞ page 29).

1 Press ◁ to start.
- "CH" blinks on the display and searching begins.
- "Completed" appears once searching is completed.

2 Press ENTER to enter the setting and switch to the Option Setup.

1
```
Search
```
```
COMPLETED
```
2
```
1.Sp 2.In ■.Op
```

- If an FM station cannot be preset automatically due to poor reception, use the "Manual tuning" operation (☞ page 30) to tune in the station, then preset it using the manual "Preset memory" operation (☞ page 30).

Option Setup

Setting the Power Amplifier Assignment

To suit your preference, a surround back channel's power amplifier can be assigned to the front channel ("Front A" or "Front B") for bi-amp playback.

1 Press ◁ ▷ to select "3. Op", then press ENTER.

2 Press ◁ ▷ to set.

S.Back:
Use as surround back speaker without assigning the power amplifier.

Front A, Front B:
This provides a bi-amp mode for the two main front speakers, replicating the front A or front B amplifier channel's outputs.

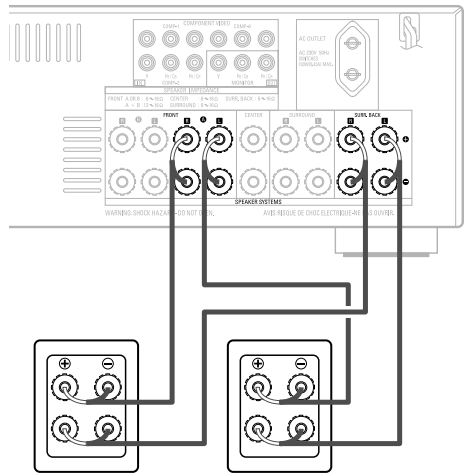
3 Press ENTER or ▽ to enter the setting and switch to the Volume Control setting.

1
```
1.Sp 2.In ■.Op
```
```
Option Setup
```
2
```
1 P.Amp S.Back
```
```
1 P.Amp Front A
```
3
```
2 Limit    0dB
```

Front Bi-Amp connections

Dynamic sound with a range wider than that of full range systems can be played by connecting bi-amp compatible speakers to the AVR-1707. Be sure to consult the owner's manual of your bi-amp-capable speakers for further information before proceeding.

AVR-1707



NOTE:
- When making bi-amp connections, be sure to remove the short-circuiting bar included with the speaker.

Setting the Volume Control

This sets the volume level of output.

1 Press △ ▽ to select the item, then press ◁ ▷ to set.

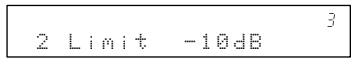
Volume Limit:
Set the volume's upper limit.
- **0 dB, –10 dB, –20 dB:**
  The volume cannot be increased above the selected levels.
- **OFF:**
  If you do not want to set a volume limit, select "OFF".
  In this case, the volume can be set to the AVR-1707's maximum volume (output) level of +18 dB, which is extremely loud.

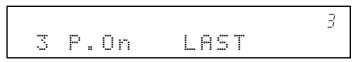
Power On Volume Level:
- **LAST:**
  The volume set when the AVR-1707 was last used is stored in the memory and set when the power is turned on.
- **– – –** (Mute)**:**
  The volume is always muted when the power is turned on.
- **–80 dB ~ +18 dB:**
  Set the volume level when the power is turned on.
  You can adjust the volume level within the range of –80 to +18 dB.

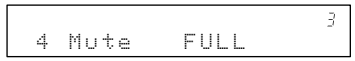
Muting Level:
Set the level of volume attenuation in the mute mode.
- **FULL:**
  The volume is fully muted.
- **–40 dB, –20 dB:**
  The volume is lowered 40 dB or 20 dB from the current level.

2 Press ENTER or ▽ to enter the setting and switch to the 2ch Direct/Stereo Custom setting.

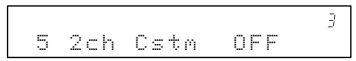
1







2



Setting the 2ch Direct/Stereo Custom

Make the 2-channel direct mode and stereo mode speaker settings.

1 Press ◁ to select "ON", then press ▽.

2 Press △ ▽ to select the item, then press ◁ ▷ to set.

Large:
Select this when using large speakers with ample low frequency reproduction capabilities.

Small:
Select this when using small speakers without ample low frequency reproduction capabilities.

Yes, No:
Select "Yes" when a subwoofer is connected, "No" when no subwoofer is connected.

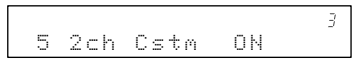
LFE (Normal):
For any channel(s) that are set to "Large", low frequencies in that channel's corresponding source are directed to that loudspeaker only. The low frequencies played from the subwoofer are only the LFE signals and the low frequencies of channels set to "Small".

LFE+Main:
Low frequencies from speaker channels that have been set to "Large" are reproduced from those speakers as well as from the subwoofer(s).

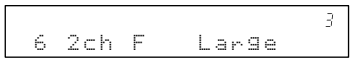
Crossover Frequency (40, 60, 80, 90, 100, 110, 120, 150, 200, 250 Hz):
Set as desired according to your speakers' bass playback ability.

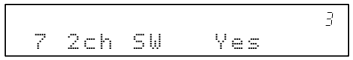
3 Press ENTER or ▽ to enter the setting and switch to the Auto Surround Mode setting.

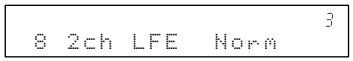
1

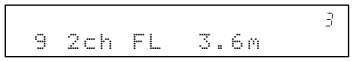


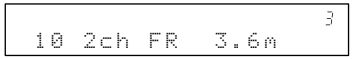
2

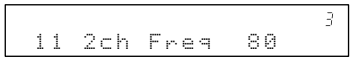




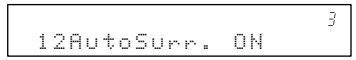








3



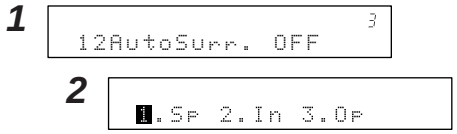
Setting the Auto Surround Mode

Set whether or not to store the surround mode last played for the input signal.
The surround mode used at last for the three types of input signals shown below is stored in the memory, and the signal is automatically played with that surround mode the next time it is input.

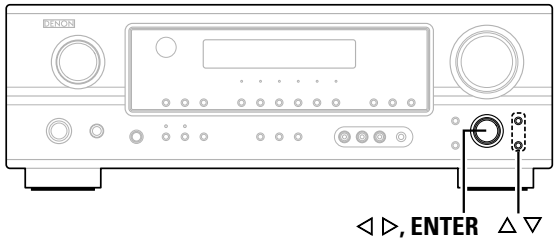
① Analog and PCM 2-channel signals (STEREO)
② 2-channel signals of Dolby Digital, DTS or other multi-channel format (DOLBY PLⅡx Cinema)
③ Multi-channel signals of Dolby Digital, DTS or other multi-channel format (DOLBY/DTS SURROUND)
※ Default settings are indicated in ( ).

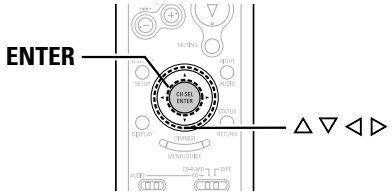
1 **Press ◁ ▷ to set.**

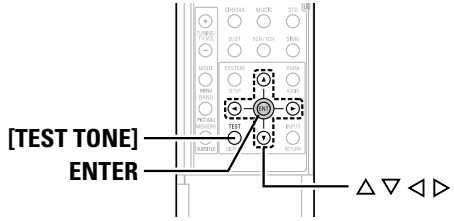
2 **Press ENTER to enter the setting and switch to the Speaker Setup.**



Advanced Setup – Part 2







About the button names in this explanation
< > : Buttons on the main unit
[ ] : Buttons on the remote control unit
Button name only :
Buttons on the main unit and remote control unit

Speaker Setup

- If the "Auto Setup" procedure has already been performed, there is no need to make this setting.
- Perform this setting if you wish to make the settings for your speaker systems manually.

Setting the Speaker Configuration

Automatically set the output component and properties for the various channels according to the combination of speakers to be actually used for surround playback.

1 **Press ◁ ▷ to select "1. Sp", then press ENTER.**

2 **Press △ ▽ to select the speaker, then press ◁ ▷ to set.**

Large:
Select this when using large speakers with ample low frequency reproduction capabilities.

Small:
Select this when using small speakers without ample low frequency reproduction capabilities.

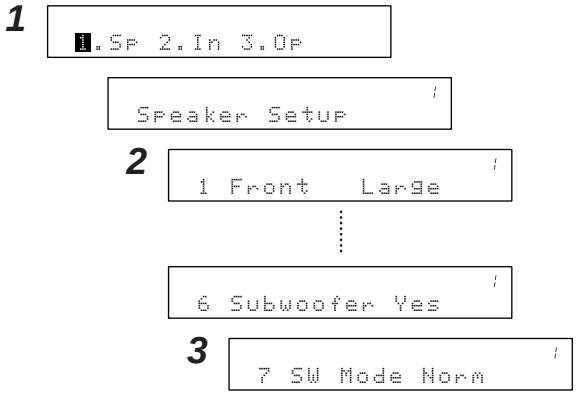
None:
Select this when no speaker is connected.

2sp / 1sp:
Select the number of surround back speakers.

Yes / No:
Select "Yes" when a subwoofer is connected, "No" when no subwoofer is connected.

※ A subwoofer with sufficient low frequency playback capability can better handle deep bass than most main and surround speakers, and the system's overall performance will be greatly enhanced when "Small" is set for the main (front) and surround speakers.
※ When "Front" is set to "Small", "Subwoofer" is automatically set to "Yes", and when "Subwoofer" is set to "No", "Front" is automatically set to "Large".

3 **Press ENTER or ▽ to enter the setting and switch to the Subwoofer Mode Setup setting.**



- Select "Large" or "Small" not according to the actual size of the speaker but according to the speaker's capacity for playing low frequency (bass sound below the frequency set for the Crossover Frequency) signals. If you do not know, try comparing the sound at both settings (setting the volume to a level low enough so as not to damage the speakers) to determine the proper setting.

Setting the Subwoofer Mode Setup

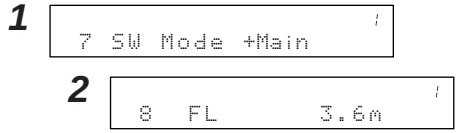
Select the method of playback of the subwoofer for playing the low bass signals.

1 Press ◁ ▷ to set.

LFE (Normal):
For any channel(s) that are set to "Large", low frequencies in that channel's corresponding source are directed to that loudspeaker only. The low frequencies played from the subwoofer are only the LFE signals and the low frequencies of channels set to "Small".

LFE+Main:
Low frequencies from speaker channels that have been set to "Large" are reproduced from those speakers as well as from the subwoofer(s).

2 Press ENTER or ▽ to enter the setting and switch to the Distance setting.



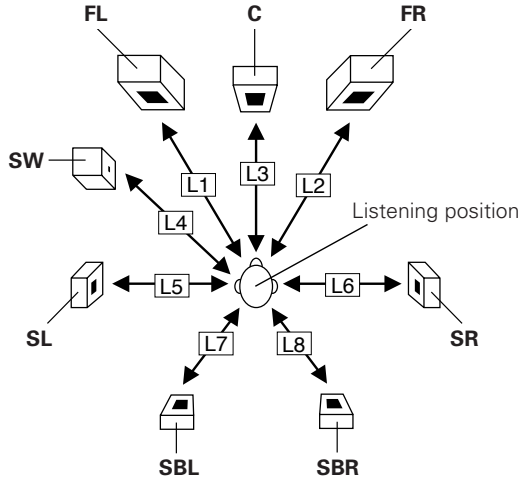
- The subwoofer mode setting is only valid when and "Yes" is set for the subwoofer in the "Setting the Speaker Configuration".
- Select the "LFE+Main" mode if you want low frequency signals to always be played from the subwoofer channel.
- Select the mode achieving a voluminous bass sound when playing music or movie sources.

Setting the Distance

This parameter is for optimizing the timing with which the audio signals are produced from the speakers and subwoofer according to the listening position.

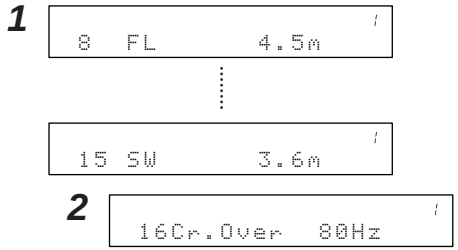
Preparations:

Measure the distances between the listening position and the speakers (L1 to L8 on the diagram at the below).



1 Press ◁ ▷ to set.

2 Press ENTER or ▽ to enter the setting and switch to the Crossover Frequency setting.



- The distance changes in units of 0.1 meters each time the button is pressed. Select the value closest to the measured distance.
- **Please note that the difference of distance for every speaker should be 6.0 m or less.**

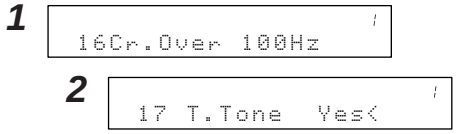
Setting the Crossover Frequency

Set the frequency (Hz) below which the bass sound of the various speakers is to be output from the subwoofer.
For speakers that are set to "Small", frequencies under the crossover frequency are cut before the signal is output, and the low frequency component that was cut is output from the subwoofer or the speakers that are set to "Large".

1 Press ◁ ▷ to set.

40, 60, 80, 90, 100, 110, 120, 150, 200, 250 Hz:
Set as desired according to your speakers' bass playback ability.

2 Press ENTER or ▽ to enter the setting and switch to the Test Tone setting.



- The crossover frequency mode is valid only when subwoofer is set to "ON", and when one or more speakers are set to "Small", as described in section "Setting the Speaker Configuration" (☞ page 43, 44).
- Set to "80 Hz" when using regular speakers. When using small speakers, we recommend setting to a higher frequency.

Setting the Test Tone

Set the volume of the various speakers so that the sound output from the speakers and the subwoofer seems to have the same volume level.

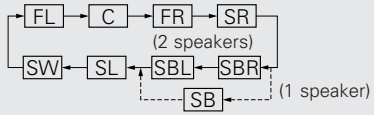
1 Press ◁ to select "Yes".

2 Press ◁ ▷ to set, then press ▽.

Auto:
Adjust the level while listening to the test tones produced automatically from each speaker.
Test tones are automatically emitted from each speaker.

Manual:
Adjust with the speaker from which the test tone is output switched manually.

3 When "Auto" mode is selected:
Press ◁ ▷ to adjust the volume.
-1
- Test tones are output automatically, in the order shown below.

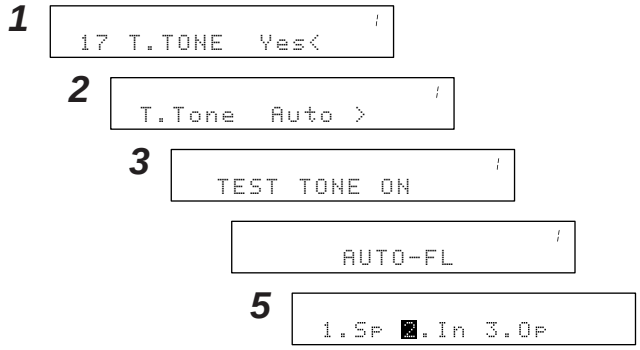


※ The volume can be adjusted within the range –12 dB to +12 dB.

3 When "Manual" mode is selected:
Press △ ▽ to select the speaker, then press ◁ ▷ to adjust the volume.
-2

4 Press ENTER to finish the Test Tone setting.

5 Press ENTER the setting and switch to the Input Setup.



- To adjust the channel level separately for the different play modes after setting the channel level, perform the operation on page 29.

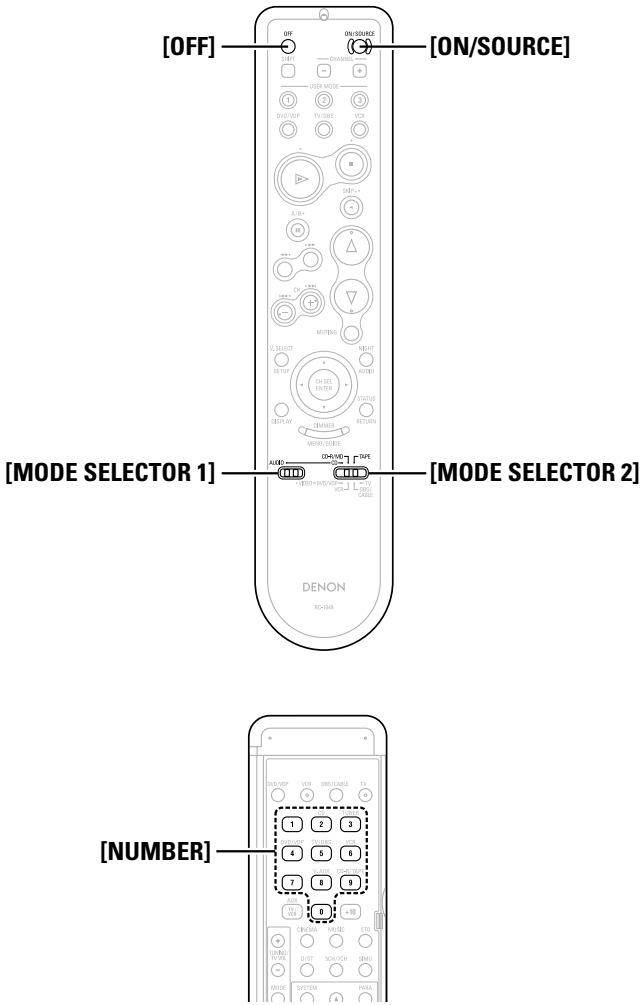
❑ Adjusting the test tone using the remote control unit

Adjustment of the test tones using the remote control unit is only possible in the "Auto" mode and only valid in the STANDARD (Dolby/DTS Surround) mode. The adjusted levels are automatically stored for the different surround modes.

1 Press [TEST TONE].
- Test tones are output from the different speakers.

2 Press ◁ ▷ to adjust the volume.

3 Press [TEST TONE].



Operating the remote control unit

Operating DENON audio components

1 **Set [MODE SELECTOR 1] to "AUDIO".**

2 **Set [MODE SELECTOR 2] to the position for the component to be operated (CD, CD-R/MD or TAPE).**

3 **Operate the audio component.**

※ For details, refer to the component's operating instructions.

※ While this remote control is compatible with a wide range of infrared controlled components, it may be the case that some component models cannot be operated with this remote control.

Setting the preset memory function

- DENON and other makes of components can be operated by setting the preset memory.
- This remote control unit can be used to operate components of other manufacturers without using the learning function by registering the manufacturer of the component as shown in the list of preset codes (☞ End of this manual).
- Operation is not possible for some models.

1 **Set [MODE SELECTOR 1] to "AUDIO" or "VIDEO".**

※ Set to the AUDIO side for the CD, TAPE or CD-R/MD position, and to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

2 **Set [MODE SELECTOR 2] to the component to be registered.**

3 **Press [ON/SOURCE] and [OFF] at the same time.**
- The indicator starts flashing.

4 **Referring to the included list of preset codes, press [NUMBER] to input the preset code (a 3-digit number) for the manufacturer of the component whose signals you want to store in the memory.**

5 **To store the codes of another component in the memory, repeat steps 1 to 4.**

- The signals for the pressed buttons are emitted while setting the preset memory. To avoid accidental operation, cover the remote control unit's transmitting window while setting the preset memory.
- Depending on the model and year of manufacture, this function cannot be used for some models, even if they are of makes listed in the list of preset codes.
- Some manufacturers use more than one type of remote control code. Refer to the included list of preset codes to change the number and verify correct operation.
- The preset memory can be set for one component only among the following: CD-R/MD, DVD/VDP and DBS/CABLE.

Operating a component stored in the preset memory

1 Set **[MODE SELECTOR 1]** to "AUDIO" or "VIDEO".

※ Set to the AUDIO side for the CD, TAPE or CD-R/MD position, and to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

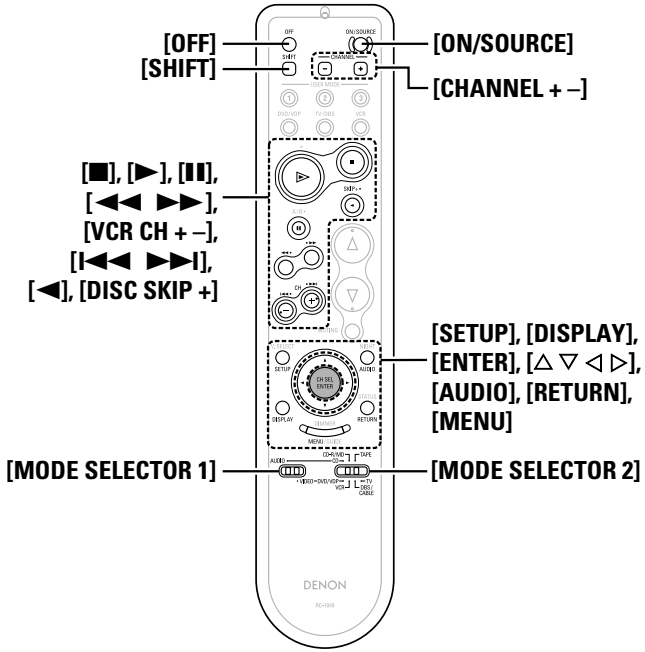
2 Set **[MODE SELECTOR 2]** to the component you want to operate.

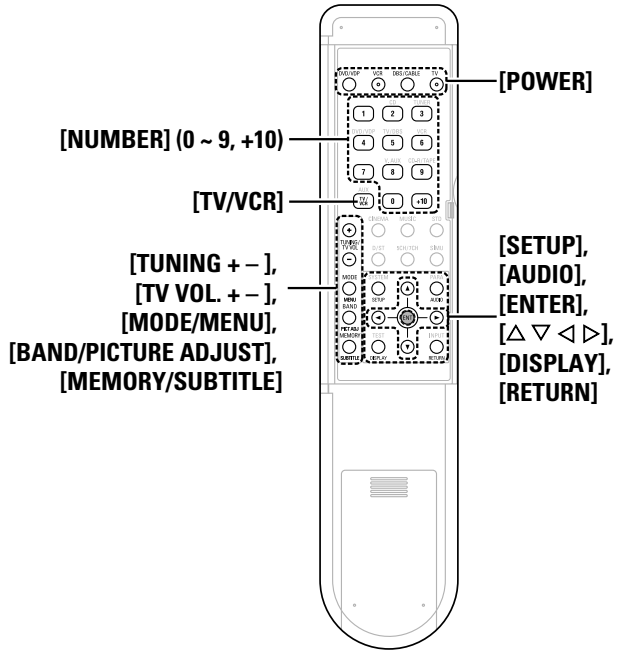
3 Operate the component.

※ For details, refer to the component's operating instructions.

※ Some models cannot be operated with this remote control unit.

Operating the remote control unit





❑Functions of buttons for the different devices

[Front]

Device operated	CD player	CD recorder	MD recorder	Tape deck	DVD player	Video disc player	Video deck	Satellite tuner	Cable TV	TV (Monitor)
MODE SELECTOR 1	AUDIO				VIDEO					
MODE SELECTOR 2	CD	CD-R / MD		TAPE	DVD / VDP		VCR	DBS / CABLE		TV
OFF	–	–	–	–	Power off	–	–	–	–	–
ON / SOURCE	–	–	–	–	Power on	Power on /Standby	Power on /Standby	Power on /Standby	Power on /Standby	Power on /Standby
SHIFT	Preset channel selection	Preset channel selection	Preset channel selection	Preset channel selection	–	–	–	–	–	–
CHANNEL –	Preset channel selection	Preset channel selection	Preset channel selection	Preset channel selection	Channels –	Channels –	Channels –	Channels –	Channels –	Channels –
CHANNEL +	Preset channel selection	Preset channel selection	Preset channel selection	Preset channel selection	Channels +	Channels +	Channels +	Channels +	Channels +	Channels +
►	Play	Play	Play	Forward play	Play	Play	Play	Punch through	Punch through	Punch through
■	Stop	Stop	Stop	Stop	Stop	Stop	Stop			
❚❚, A/B	Pause	Pause	Pause	A/B switching	Pause	Pause	Pause			
◄, DISC SKIP +	Disc skip +	–	–	Reverse play	Disc skip	–	–			
◄◄	Search (reverse)	Search (reverse)	Search (reverse)	Rewind	Search (reverse)	Search (reverse)	Search (reverse)			
►►	Search (forward)	Search (forward)	Search (forward)	Fast forward	Search (forward)	Search (forward)	Search (forward)			
I◄◄, VCR CH –	Skip (reverse)	Skip (reverse)	Skip (reverse)	–	Skip (reverse)	Skip (reverse)	Channels –			
►►I, VCR CH +	Skip (forward)	Skip (forward)	Skip (forward)	–	Skip (forward)	Skip (forward)	Channels +			
SETUP	–	–	–	–	Setup	–	–	–	–	–
△▽◁▷	–	–	–	–	Cursor operation	–	–	Cursor operation	Cursor operation	Cursor operation
AUDIO	–	–	–	–	Audio	–	–	–	–	–
ENTER	–	–	–	–	Enter	–	–	Enter	Enter	Enter
DISPLAY	–	–	–	–	Display selection	–	–	Display selection	Display selection	Display selection
RETURN	–	–	–	–	Return	–	–	Return	Return	Return
MENU	–	–	–	–	Menu	–	–	Menu	Menu	Menu

[Rear]

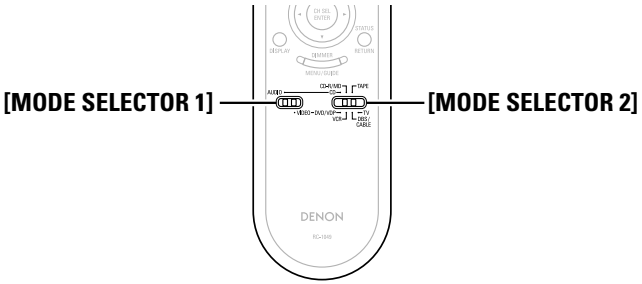
Device operated	CD player	CD recorder	MD recorder	Tape deck	DVD player	Video disc player	Video deck	Satellite tuner	Cable TV	TV (Monitor)
MODE SELECTOR 1	AUDIO				VIDEO					
MODE SELECTOR 2	CD	CD-R / MD		TAPE	DVD / VDP		VCR	DBS / CABLE		TV
POWER	–	–	–	–	Power on / off	Power on / off	Power on / off	Power on / off	Power on / off	Power on / off
NUMBER (0 ~ 9, +10)	–	–	–	–	Number input / Track selection	Number input / Track selection	–	Channels	Channels	Channels
TV/ VCR	–	–	–	–	Input mode selection	Input mode selection	Input mode selection	Input mode selection	Input mode selection	Input mode selection
TUNING + / TV VOL +	Tuning	Tuning	Tuning	Tuning	Volume control +	Volume control +	Volume control +	Volume control +	Volume control +	Volume control +
TUNING – / TV VOL –	Tuning	Tuning	Tuning	Tuning	Volume control –	Volume control –	Volume control –	Volume control –	Volume control –	Volume control –
MODE / MENU	Auto/Manual switching	Auto/Manual switching	Auto/Manual switching	Auto/Manual switching	Menu	–	–	Menu	Menu	Menu
SETUP	–	–	–	–	Setup	–	–	–	–	–
△▽◁▷	–	–	–	–	Cursor operation	–	–	Cursor operation	Cursor operation	Cursor operation
AUDIO	–	–	–	–	Audio	–	–	–	–	–
BAND / PICTURE ADJUST	AM/FM switching	AM/FM switching	AM/FM switching	AM/FM switching	Picture adjust	–	–	–	–	–
ENTER	–	–	–	–	Enter	–	–	Enter	Enter	Enter
MEMORY / SUBTITLE	Preset memory	Preset memory	Preset memory	Preset memory	Subtitle	–	–	–	–	–
DISPLAY	–	–	–	–	Display selection	–	–	Display selection	Display selection	Display selection
RETURN	–	–	–	–	Return	–	–	Return	Return	Return
Default setting (Preset code)	DENON (111)	DENON (111)	–	DENON (111)	DENON (111)	–	HITACHI (108)	–	ABC (007)	HITACHI (134)
Special remarks	①	①		①	①, ②		①	①, ③		①, ③

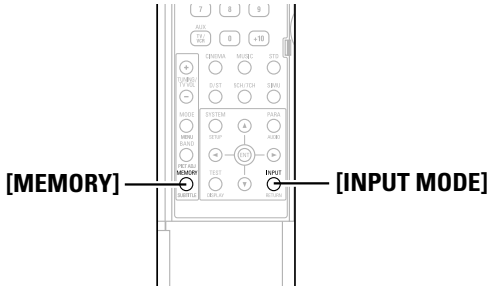
Special remarks:

① It is only possible to set the preset memory for one device per mode. When a new code is preset, the previous code is automatically deleted.

② Note that the function names of the DVD buttons on the remote control unit may differ for some brands. Check beforehand.

③ The CD, CD-R/MD, TAPE, VCR or DVD/VDP buttons can be assigned to a TV or satellite tuner (or cable TV) (☞ page 50).





Setting the punch through function

"Punch Through" is a function allowing you to operate ►, ■, ◄◄, ►►, I◄◄ and ►►I on CD, TAPE, CD-R/MD, DVD/VDP or VCR components when in the DBS/CABLE or TV mode. By default, nothing is set.

1 **Set [MODE SELECTOR 1] to "VIDEO".**

2 **Set [MODE SELECTOR 2] to the component to be registered (DBS/CABLE or TV).**

3 **Press [MEMORY] and [INPUT MODE] at the same time.**
• The indicator starts flashing.

4 **Input the number of the component you want to set.**

	No.
CD	1
TAPE	2
CD-R/MD	3
DVD/VDP	4
VCR	5
No setting	0

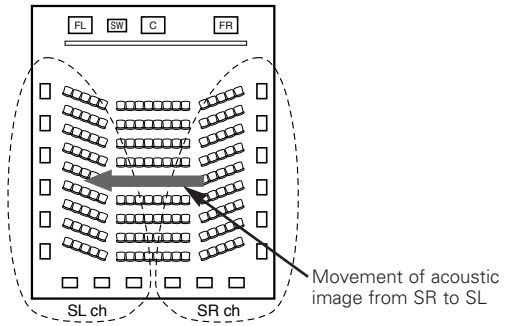
Additional Information

About the speakers

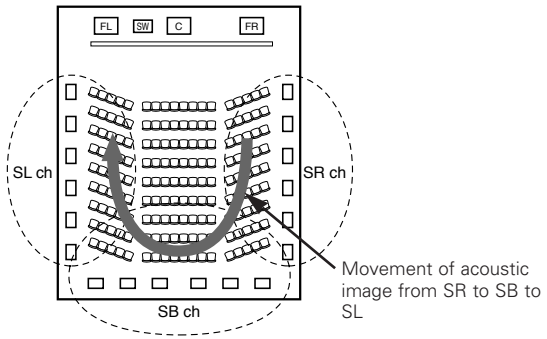
Surround back speakers

Sound position directly to the rear can be achieved easily by adding a surround back speaker to a 5.1-channel system.
In addition, the acoustic image extending between the sides and the rear is narrowed, thus greatly improving the expression of the surround signals for sounds moving from the sides to the back and from the front to the point directly behind the listening position.

Change of positioning and acoustic image with 5.1-channel systems



Change of positioning and acoustic image with 6.1-channel systems



In addition to sources recorded in 6.1-channels, the surround effect of conventional 2- to 5.1-channel sources can also be enhanced.

❑Number of surround back speakers

We recommend using two speakers.
When using dipolar speakers in particular, be sure to use two speakers.

❑Placement of the surround left and right channels when using surround back speakers

We recommend installing the speakers for the surround "L" and "R" channels a bit forward.

Examples of speaker layouts

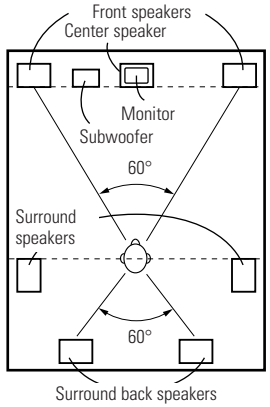
Below we introduce examples of speaker layouts. Refer to these to arrange your speakers according to their type and how you want to use them.

[1] Using surround back speaker(s)

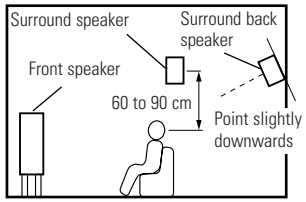
① When mainly playing movies

Recommended when your surround speakers are single or 2-way speakers.

[As seen from above]

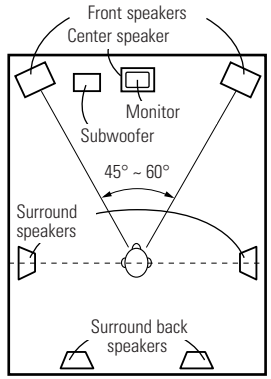


[As seen from the side]

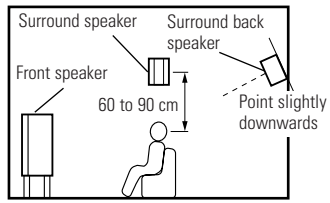


② When playing movies and musics

[As seen from above]

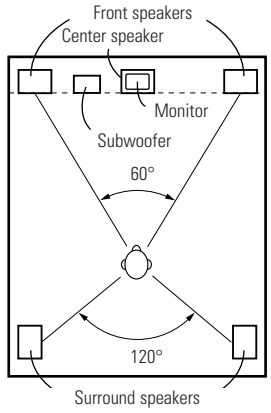


[As seen from the side]

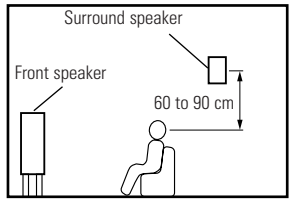


[2] When not using surround back speakers

[As seen from above]



[As seen from the side]



Surround

The AVR-1707 is equipped with a digital signal processing circuit that lets you play program sources in the surround mode to achieve the same sense of presence as in a movie theater.

Dolby Surround

[1] Dolby Digital

Dolby Digital is the multi-channel digital signal format developed by Dolby Laboratories.
A total of 5.1-channels are played: three front channels ("FL", "FR" and "C"), two surround channels ("SL" and "SR") and the "LFE" channel for low frequencies.
Because of this, there is no crosstalk between channels and a realistic sound field with a "three-dimensional" feeling (sense of distance, movement and positioning) is achieved.
A real, overpowering sense of presence is achieved when playing movie sources in AV rooms as well.

[2] Dolby Pro Logic Ⅱ

Dolby Pro Logic Ⅱ is a matrix decoding technology developed by Dolby Laboratories. Regular music such as that on CDs is encoded into 5 channels to achieve an excellent surround effect.
The surround channel signals are converted into stereo and full band signals (with a frequency response of 20 Hz to 20 kHz or greater) to create a "three-dimensional" sound image offering a rich sense of presence for all stereo sources.

[3] Dolby Pro Logic Ⅱx

Dolby Pro Logic Ⅱx is a further improved version of the Dolby Pro Logic Ⅱ matrix decoding technology.
Audio signals recorded in 2 channels are decoded to achieve a natural sound with up to 7.1-channels.
There are three modes: "Music" suited for playing music, "Cinema" suited for playing movies, and "Game" which is optimum for playing games.

❑Sources recorded in Dolby Surround

Sources recorded in Dolby Surround are indicated with the following logo marks.
Dolby Surround support mark: DOLBY SURROUND

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

DTS Digital Surround

DTS Digital Surround is a digital surround format developed by Digital Theater Systems of the United States.
The number of playback channels and the playing band is the same as for Dolby Digital (5.1-channels).
The compression rate of the audio data when it was recorded on the medium is lower than for Dolby Digital, so there is more information when the data is decoded, resulting in richer, clearer sound quality.

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DTS-ES™

DTS-ES is a new surround format developed by Digital Theater Systems.
A sound image and sense of positioning can be achieved by adding a surround back ("SB") channel to the conventional 5.1-channels.

DTS-ES™ Discrete 6.1:
This is the latest format, in which all 6.1-channels, including the "SB" channel, are recorded independently. Since the different channels are independent, the sound can be designed with total freedom.

DTS-ES™ Matrix 6.1:
With this format, the "SB" channel is matrix-encoded and inserted into the "SL" and "SR" channels, then decoded for the "SL", "SR" and "SB" channels upon playback. This achieves a surround sound more faithful to the artist's sound design intentions than with conventional 5.1- or 6.1-channel systems.

DTS NEO:6 surround

This is a matrix decoding technology for 6.1-channel surround playback of 2-channel sources.
The optimum decoding for the type of signal source to be played can be selected. There are two modes.

DTS NEO:6 CINEMA:
This mode is suited for playing movies. It achieves the same type of sound as in a movie theater, even with 2 channels.

DTS NEO:6 MUSIC:
This mode is suited for playing music. A natural sense of expansion is added to the sound field.

DTS 96/24

DTS 96/24 is a multi-channel digital signal format developed by Digital Theater Systems.
The sampling frequency is raised to achieve 5.1-channel playback with high quality sound (sampling frequency: 96 kHz, quantization: 24 bits).

Troubleshooting

If a problem should arise, first check the following.
1. Are the connections correct?
2. Have you operated the receiver according to the Operating Instructions?
3. Are the speakers and other components operating properly?
If this unit is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

Symptom	Cause	Measures	Page
Display not lit and sound not produced when POWER switch set to on.	• Power supply cord not plugged in securely.	• Check the insertion of the power supply cord plug.	17
Display lit but sound not produced.	• Speaker cables not securely connected. • INPUT SELECTOR knob position is not appropriate. • Volume control set to minimum. • MUTING is on. • No digital signal is being input.	• Connect securely. • Switch to the proper position. • Turn volume up to suitable level. • Switch off MUTING. • Properly select a digital signal input source.	8 18 18 19 39
Nothing is displayed on monitor.	• AVR-1707's video output terminals and monitor's input terminals are not properly connected. • Monitor's input setting is wrong. • Player connected with component terminal, TV connected with video terminal (yellow) or S-Video terminal.	• Check that the connections are correct. • Set the monitor's input selector to the terminals to which video signals are connected. • Down-conversion is not possible for progressive video signals. Make the interlace settings on the player.	9, 13 ~ 17 — —
No DTS sound is produced.	• DVD player's audio output setting is not set to bit stream. • DVD player is not DTS-compatible. • AVR-1707's input setting is set to analog.	• Make the DVD player's default settings. • Use a DTS-compatible player. • Set to "AUTO" or "DTS".	— — 18
Copying from DVD to VCR is not possible.	• Copying between a source such as DVD and a VCR is not usually possible, as DVDs are often encoded with copy-protection signals that prevent VCR recording.	• Copying is not possible.	—
No sound is produced from subwoofer.	• Subwoofer's power is not on. • Subwoofer's initial setting is set to "NO". • Subwoofer's output is not connected. • The subwoofer's channel volume level is set to "OFF".	• Turn on the power. • Set the setting to "YES". • Connect properly. • Turn the subwoofer's channel volume level up.	— 43, 44 8 29
No test tones are produced.	• Surround mode is set to a mode other than STANDARD (Dolby/DTS Surround).	• Set to STANDARD (Dolby/DTS Surround).	—
No sound is produced from surround speakers.	• Surround mode is set to "STEREO".	• Set to a mode other than "STEREO".	—
This unit does not operate properly when remote control unit is used.	• Batteries dead. • Remote control unit too far from this unit. • Obstacle between this unit and remote control unit. • Different button is being pressed. • ⊕ and ⊖ ends of batteries inserted in reverse.	• Replace with new batteries. • Move closer. • Remove obstacle. • Press the proper button. • Insert batteries properly.	3 3 3 — 3
Power has turned off and the power indicator is blinking red.	• The set's internal temperature has risen and the protection circuit has been activated. • The core wires of the speaker cables are touching each other or the AVR-1707's rear panel, activating the protection circuit. • AVR-1707 is malfunctioning.	• Put the AVR-1707 in a well-ventilated place. • Turn off the power, then wait for the set to fully cool off before turning the power back on. • Check the connections of all the speaker cables. • Turn off the power and contact a DENON customer service center.	8 8 8 8
Sound is only produced from the center speaker.	• You are playing a monaural source (TV, AM radio broadcast, etc.) in the STANDARD (Dolby/DTS Surround) mode.	• When playing monaural sources, select a surround mode other than STANDARD (Dolby/DTS Surround) mode.	28
"DOLBY DIGITAL" is not displayed.	• DVD player's digital audio output setting is not proper.	• Check the DVD player's audio output setting. For details, see the DVD player's operating instructions.	—

Specifications

❑ Audio section

- **Power amplifier**

Rated output:

Front (A, B):
75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)
Center:
75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)
Surround:
75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)
Surround Back:
75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)

Output terminals:

Front: A or B 6 ~ 16 Ω/ohms
A + B 12 ~ 16 Ω/ohms
Center, Surround, Surr. Back: 6 ~ 16 Ω/ohms

- **Analog**

Input sensitivity / input impedance: 200 mV / 47 kΩ/kohms
Frequency response: 10 Hz ~ 100 kHz: +1, –3 dB (DIRECT mode)
S/N: 98 dB (DIRECT mode)

❑ Video section

- **Standard video terminals**

Input / output level and impedance: 1 Vp-p, 75 Ω/ohms
Frequency response: 5 Hz ~ 10 MHz — +1, –3 dB

- **S-Video terminals**

Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
C (color) signal — 0.3 (PAL) / 0.286 (NTSC) Vp-p, 75 Ω/ohms
Frequency response: 5 Hz ~ 10 MHz — +1, –3 dB

- **Color component video terminal**

Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
P_B/C_B signal — 0.7 Vp-p, 75 Ω/ohms
P_R/C_R signal — 0.7 Vp-p, 75 Ω/ohms
Frequency response: DC ~ 100 MHz — +0, –3 dB

❑ Tuner section

	[FM]		[AM]
	(note: µV at 75 Ω/ohms, 0 dBf = 1 x 10^{-15} W)		
Receiving Range:	87.50 MHz ~ 108.00 MHz		522 kHz ~ 1611 kHz
Usable Sensitivity:	1.0 µV (11.2 dBf)		18 µV
50 dB Quieting Sensitivity:	MONO	1.6 µV (15.3 dBf)	
	STEREO	23 µV (38.5 dBf)	
S/N (IHF-A):	MONO	77 dB	
	STEREO	72 dB	
Total Harmonic Distortion (at 1 kHz):	MONO	0.15%	
	STEREO	0.3%	

❑ General

Power supply: AC 230 V, 50 Hz
Power consumption: 415 W
1 W Max (Standby)
Maximum external dimensions: 434 (W) x 147 (H) x 417 (D) mm
Mass: 11.4 kg

❑ Remote control unit (RC-1049)

Batteries: R6P/AA Type (Two batteries)
External dimensions: 52 (W) x 243 (H) x 21 (D) mm
Mass: 175 g (included batteries)

* For purposes of improvement, specifications and design are subject to change without notice.

❑ List of preset codes / Liste von voreingestellten Codes / Liste de codes préréglés / Lista dei codici pre-regolati / Lista de códigos pre-ajustados / Lijst van vooringestelde codes / Förteckning över förinställda koder

DVD

Denon	014, ***[111]**
Aiwa	009
Hitachi	010
JVC	006, 011
Konka	012, 013
Magnavox	005
Mitsubishi	004
Panasonic	014
Philips	005, 015, 016, 017
Pioneer	003, 008
Sanyo	018
Sony	002, 019, 020
Toshiba	001, 021, 022
Zenith	023

VDP

Denon	028, 029, 112
Magnavox	026
Mitsubishi	028
Panasonic	029, 030
Philips	026
Pioneer	028, 031
RCA	032
Sony	033, 034, 035, 036

VCR

Admiral	081
Aiko	095
Aiwa	009
Akai	026, 027, 070, 072, 082, 083, 084
Alba	055
Amstrad	009
ASA	042
Asha	087
Audio Dynamic	005, 085
Audiovox	088
Beaumark	087
Broksonic	086, 093
Calix	088
Candle	006, 087, 088, 089, 090
Canon	049, 057
Capehart	025, 055, 056, 071
Carver	015
CCE	095
Citizen	006, 007, 087, 088, 089, 090, 095
Craig	007, 087, 088, 091, 115
Curtis Mathes	006, 049, 073, 080, 087, 090, 092
Cybernex	087
Daewoo	025, 055, 059, 074, 089, 093, 095, 096
Daytron	025, 055
DBX	005, 085
Dumont	053
Dynatech	009
Electrohome	001, 088, 097
Electrophonic	088
Emerson	001, 009, 017, 027, 086, 088, 089, 092, 093, 097, 100, 101, 102, 103, 104, 117
Fisher	009, 028, 031, 053, 054, 091, 099, 115
GE	007, 011, 049, 050, 051, 052, 073, 080, 087
Go Video	047, 048
Goldstar	000, 006, 012, 062, 088
Gradiente	094
Grundig	042
Harley Davidson	094
Harman Kardon	040, 062
Hi-Q	091
Hitachi	009, 013, 023, 026, 058, ***[108]**, 109, 110, 111
JC Penny	004, 005, 007, 023, 028, 049, 062, 085, 087, 088
Jensen	013, 026
JVC	004, 005, 006, 026, 029, 043, 044, 045, 046, 085
Kenwood	004, 005, 006, 026, 029, 033, 045, 085, 090
Kodak	088
Lloyd	009, 094
LXI	088
Magnavox	015, 016, 042, 049, 063, 106
Magnin	087
Marantz	004, 005, 006, 015, 042, 049, 085, 090
Marta	088
MEI	049
Memorex	009, 033, 049, 053, 060, 081, 087, 088, 091, 094, 115
Metz	123, 124, 125, 126, 127, 128
MGA	001, 017, 027, 041, 097
MGN Technology	087
Midland	011
Minolta	013, 023
Mitsubishi	001, 003, 008, 013, 014, 017, 027, 029, 039, 040, 041, 045, 097
Motorola	081
Montgomery Ward	001, 002, 007, 009, 049, 063, 081, 115, 117
MTC	009, 087, 094
Multitech	007, 009, 011, 087, 090, 094
NAD	038
NEC	004, 005, 006, 018, 026, 029, 045, 061, 062, 085
Nikko	088
Noblex	087
Optimus	081, 088
Optonica	021
Panasonic	024, 049, 064, 066, 067, 068, 069, 107
Perdio	009
Pentax	009, 013, 023, 058, 090
Philco	015, 016, 049
Philips	015, 021, 042, 049, 105
Pilot	088
Pioneer	005, 013, 029, 036, 037, 038, 045, 085
Portland	025, 055, 090
Proscan	063, 080
Pulsar	060
Quartz	033
Quasar	034, 035, 049
Radio Shack	001, 002, 021, 081, 087, 088, 091, 094, 097, 098, 115

Radix	088
Randex	088
RCA	007, 013, 019, 023, 058, 063, 064, 065, 073, 080, 082, 087
Realistic	009, 021, 031, 033, 049, 053, 081, 087, 088, 091, 094, 097, 098
Ricoh	055
Salora	033, 041
Samsung	007, 011, 051, 059, 070, 083, 087, 089, 113
Sanky	081
Sansui	005, 026, 029, 045, 061, 085, 114
Sanyo	032, 033, 053, 087, 091, 115, 116
SBR	042
Scott	017, 020, 086, 089, 093, 117
Sears	013, 023, 028, 031, 033, 053, 054, 088, 091, 098, 099, 115
Sentra	055
Sharp	001, 002, 021, 097
Shogun	087
Sony	075, 076, 077, 078, 079, 121, 122
STS	023
Sylvania	009, 015, 016, 017, 041, 049, 094
Symphonic	009, 094
Tandy	009
Tashiko	009, 088
Tatung	004, 026, 030
Teac	004, 009, 026, 094
Technics	024, 049
Teknika	009, 010, 022, 049, 088, 094
TMK	087, 092
Toshiba	013, 017, 020, 041, 059, 089, 098, 099, 117
Totevision	007, 087, 088
Unirech	087
Vecrtor Research	005, 062, 085, 089, 090
Victor	005, 045, 046, 085
Video Concepts	005, 027, 085, 089, 090
Videosonic	007, 087
Wards	013, 021, 023, 087, 088, 089, 091, 094, 097, 118, 119, 120
XR-1000	094
Yamaha	004, 005, 006, 026, 062, 085
Zenith	060, 078, 079

TV

Admiral	045, 121
Adventura	122
Aiko	054
Akai	016, 027, 046
Alleron	062
A-Mark	007
Amtron	061
Anam	006, 007, 036
Anam National	061, 147
AOC	003, 007, 033, 038, 039, 047, 048, 049, 133
Archer	007
Audiovox	007, 061
Bauer	155
Belcor	047
Bell & Howell	045, 118
Bradford	061
Brockwood	003, 047
Candle	003, 030, 031, 032, 038, 047, 049, 050, 122
Capehart	003
Celebrity	046
Circuit City	003
Citizen	029, 030, 031, 032, 034, 038, 047, 049, 050, 054, 061, 095, 122, 123
Concerto	031, 047, 049
Colortyme	003, 047, 049, 135
Contec	013, 051, 052, 061
Cony	051, 052, 061
Craig	004, 061
Crown	029
Curtis Mathes	029, 034, 038, 044, 047, 049, 053, 095, 118
Daewoo	027, 029, 039, 048, 049, 054, 055, 106, 107, 137
Daytron	003, 049
Dimensia	044
Dixi	007, 015, 027
Electroband	046
Electrohome	029, 056, 057, 058, 147
Elta	027
Emerson	029, 051, 059, 060, 061, 062, 118, 123, 124, 139, 148
Envision	038
Etron	027
Fisher	014, 021, 063, 064, 065, 118
Formenti	155
Fortress	012
Fujitsu	004, 062
Funai	004, 062
Futuretech	004
GE	020, 036, 037, 040, 044, 058, 066, 088, 119, 120, 125, 147
Goldstar	000, 015, 029, 031, 039, 048, 051, 056, 057, 067, 068, 069, 116
Grundy	062
Hitachi	029, 031, 051, 052, 070, 111, 112, 113, 124, ***[134]**
Hitachi Pay TV	151
Infinity	017, 071
Janeil	122
JBL	017, 071
JC Penny	020, 034, 039, 040, 041, 044, 048, 050, 058, 066, 069, 076, 088, 090, 095, 125, 136, 159
JCB	046
JVC	019, 051, 052, 072, 073, 091, 117, 126
Kawasho	018, 046
Kenwood	038, 056, 057
Kloss	010, 032
Kloss Novabeam	005, 122, 127, 131
KTV	074, 123
Loewe	071
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***[ ]** : Preset codes set upon shipment from the factory.

: Sie Voreinstellungscodes wurden vor der Auslieferung werkseitig eingestellt.

: Les codes préréglés diffèrent en fonctiom des livraison de l'usine.

: I codici di presettaggio sono impostati in fabbrica prima della consegna.

: Los códigos vienen preprogramados de fábrica.

: Vooringestelde codes bij hey verlaten van de fabriek.

: Förinställda koder har ställts in vid transporten från fabriken.

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